STAFF EXHIBIT 5

From: Katherine Carroll
To: Preston Pinkston; Donn Carroll; Katherine Carroll; Scott Tips; Charles Frohman
Subject: Re: Permit Number(s): WCF25-0002, SEP25-0021
Date: Thursday, August 28, 2025 5:29:52 PM

Dear Mr. Pinkston,

In protest of the proposed cell tower on Skyview Drive, a purely residential and forested neighborhood in Mossyrock, WA, Dr. Donald Carroll and I strongly disagree with placement of this tower.

We have operated a high-end bed and breakfast at 186 Skyview Drive, Adytum Sanctuary, since 2010. We were the first luxury accommodation in Lewis County and the first to offer Tesla Charging stations (two Tesla and one hybrid) on Highway 12. We allowed the public to charge here at Adytum Sanctuary for years without payment before Lewis County finally installed chargers.

Additionally, over the fifteen years we have operated our successful inn-keeping business, we have opened our organic farm to public eco-ag tours for a "Food Forest" and edible landscape which includes banks of bee hives. You can read our reviews online (most are on AirB&B, some of Google, VRBO, etc) and more than even starting these two successful businesses here (and we also have Medical Vision Center in Morton since 1979!!) we hear from people of their need for just such a "slice of heaven" and "a true Sanctuary..."

We have served Lewis County since 1979 as an eye doctor (the last non-corporate doctor in our area) and with the Inn and Eco-Ag Tourism. We are working with the County now and entered the conservation program where we will be awarded funding for superior conservation of our land (15.4 acres plus part in Forest program).

We ask you to deny the permit for the cell tower on the grounds that it will completely destroy the aesthetic we have sculpted carefully for the last twenty years of living at 186 Skyview Drive. We are concerned about continuing to effectively serve in the tourism arena (we have hosted over 6000 people from all over the World) if those who visit are confronted with a cell tower.

The cell towers are known to cause DNA damage leading to cancer. With so many lawsuits aimed at Monsanto and others who disregard health for profit, I should think Lewis County would be wise to avoid placing yourselves in the direct line of fire (lawsuits for damages) as our health is impacted negatively. Memory and neurological issues, fertility issues, fatigue, sleep destruction, rashes,and digestive problems are also correlated with the towers. Bees are impacted and this is a huge agriculture area with Pan American Blueberries and the new farm purchased from DeGoedes below our hill.

Additionally, cell towers are a known fire hazard and we are heavily timbered with underbrush on this hill. Fire truck access is limited in places, they cannot turn around and of course, outside the City limits, we have no hydrants.

I have notified the Scenic Bypass group as this impacts tourism greatly, particularly since the 150' tower would be visible from Highway 12. We already have one tower across the Lake and it is an eyesore destroying the aesthetic character of our mountain community. It is a very bad land use and certainly not the highest and best use.

Here are general comments from our community meeting today which was also attended by the President Scott Tips of the National Health Federation and the National Health Federation Lobbyist Charles Frohman, along with Vanessa Shinmoto and Fariha Husain of Children's Health Defense (RFK's outfit). I am a writer and articles editor of *Health Freedom News* and will be writing an article on this for our magazine and significant membership.

Please consider our plea to stop this cell tower NOW.
Here are comments:

The proposed tower(s) would be closely surrounded entirely by residential parcels already occupied by

families who call this community home. There is no support of this project from affected residents. The tower(s) will be visible for miles around, situated on one of the tallest hills in Mossyrock—even visible from the scenic US Highway 12 bypass.

Why We Oppose The Wireless Communications Facility:

- Impacts the quiet, scenic, and safe character of Mossyrock, WA
- We must reject the siting of wireless towers in established residential areas in Lewis County
- The site is located in a well-established, wooded residential community
- Poses a documented fire risk due to high-voltage equipment and backup power systems, which have been linked to tower-related fires in wildfire-prone areas
- The only access to the site is via a narrow, steep, winding, private, community maintained, one-lane road
- This proposed development poses serious concerns regarding (private) road maintenance and safety
- Lowers nearby property values
- Raises health and safety concerns related to radiofrequency (RF) emissions
- Disrupts and harms local wildlife (including Mossyrock bees) and the natural environment
- Disrupts community aesthetics and quality of life

In Health Freedom,

Katherine A. Carroll
CFO, NHF Board of Governors Secretary/Treasurer
Executive Director, Foundation for Health Research
www.thenhf.com
www.foundationforhealthresearch.org
626.357.2181 office
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From: alan watts
To: Preston Pinkston
Subject: WCF25-0002, SEP25-0021 - Public Comments
Date: Thursday, August 28, 2025 12:31:13 PM
Attachments: Summary of Comments on WCF25-0002_Application_Documents_Combined.pdf

Mr. Pinkston,

Below you will find a list of comments on the application package for Permit WCF25-0002, SEP25-0021. I have also attached a PDF file with comments shown so you may see them in context. Please confirm receipt of these comments at your earliest convenience.

Generally, it is my impression that Harmoni Towers (Project Proponent) rushed through the application process and is seeking a simple and quick approval to move forward. In some areas, they have failed to provide sufficient information, and in other areas, they directly contradict information already provided.

My family and I have recently moved into the residential area, and we are neighbors to this proposed project. We and numerous others do not want our beautiful and quiet residential area to be burdened with an unsightly commercial facility. To that end, please see my following comments:

Page:8

Access/Circulation - Access to the site needs to be described from Birley Road. Skyview Drive is a private road, and the project proponent will be required to adhere to the access easement which does not allow for any vegetation clearing or trimming. Additionally, the easement only allows for access over an approximate 10 foot wide existing road. The Project Proponent will need to get approval from neighboring property owners to conduct any activity other than driving along the existing road. Although they may be minimal, there are traffic impacts. However, in the proposed location, those minimal impacts are increased due to the one-way road. Project Proponent will need to get approval from neighboring property owners to use their driveways as pull-outs to allow traffic to pass.

Section V - The project proponent did not address 15.50.010(2) which states the purpose of the Chapter is to “encourage the location of support towers and antenna arrays in ***nonresidential*** and nonschool zones”(emphasis added)

Page:9

Response to 15.50.025(1)(e) - <!--[endif]-->This statement is slightly misleading. It is more accurate to state that this is the LEAST preferable type of facility according to the Code.

Response to 15.50.025(2)(b) - This is a potential 90 year lease. During which time, surrounding properties will be devalued due to proximity to a commercial tower. According to The National Business Post, property values could be reduced by up to 20%.

Lewis county stands to lose tax revenue due to the devaluation of surrounding

property.

Page:10

Response to 15.50.030(2)(b) - All considerations for the granting of this permit should consider cumulative impact (traffic, noise, health issues, etc.) of four facilities, not just the impact of the initial tower.

Page 11

Response to 15.50.035(2)(a) - Minimum setback distance is the height of the tower (150 ft). Therefore, Project Proponent is out of compliance based on the setback distances stated here.

Page 12

Response to 15.50.040(1)(a) - I did not find a narrative which includes location, development standards, or design standards. Project Proponent needs to make this narrative available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Response to 15.50.040(1)(c) - The easement from Birley grants access along the “existing gravel road” It does not grant authority for any vegetation trimming or clearance or widening of the road.

Residents in this area have, at their own expense, paved a portion of the road. The paved area and the gravel portions of the easement are approximately 10 feet in width.

According to the original language when the easement was granted (1978) no rights were granted except for travel along the "existing gravel road." Since there are no survey points or measurements from the center line of the road, the easement limits are at the outside boundary of the gravel/paved path. In this case approximately 10 feet wide. Any encroachment, improvement, modification, or other activity outside that limit would require the authorization of the neighboring landowner.

Page 13

Response to 15.50.040(1)(f) - The photo analysis lacks existing conditions from the point of entry onto private property. When turning off of Birley onto Skyview Dr, one immediately enters onto a private road. This road is maintained by the residents, and a portion of it was recently paved. The project Proponent must provide photographic analysis of any existing damage to the road as well as status of adjacent and overhanging vegetation.

Additionally, there is no photographic analysis of the site from the nearest residential structures on the eastern side of the site.

Page 14

Response to 15.50.040(2)(b) - <!--[endif]-->I did not find the evaluation drawings.

Project Proponent needs to make these drawings available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Response to 15.50.040(2)(c) - Project Proponent has not included a detailed landscaping and screening plan which includes existing vegetation.

This section of the code REQUIRES a detailed plan to be included in the proposal.

Project Proponent needs to develop such plan and show what vegetation will remain after the site work is completed. The plan will then need to be available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Page 15

Summary - According to Chapter 15.50 of the Lewis county code, this facility is neither consistent with local ordinances (This chapter is established to encourage construction of towers in non residential areas.) nor located in the highest preference (this is the LEAST preferable facility according to the chapter).

Page 65

Background #7 - This response is clearly contradicted by the Project Proponent in their responses to the Code above.

Project proponent stated previously that this facility is “designed for 3 additional collocators. It is the intention of Harmoni Towers to market the facility to other providers"

The entire SEPA checklist is predicated on a single facility. At the same time, the Project Proponent indicates that they have plans for future additions, expansion, or further activity because they have designed it for additional collocators and they intend to market that additional capacity.

At the very least, Project Proponent should revise the SEPA checklist and resubmit it for review based on the potential for additional facilities.

Page 67

Environmental Elements 1.e. - <!--[endif]-->It is my understanding that there will be a 12 ft wide road as well as an additional 8ft wide easement for utilities. The current road access to the site appears to be approximately 10 ft wide with steep (up to 40%) slopes on both the uphill and downhill sides. In order to establish a 20 foot access and utility easement, significant effort will go into widening the road. The potential for rocks or trees to fall onto the residences to the east is significant.

The total affected area will include grading necessary for expansion of the access road. The access road appears to be approximately 750 feet long. with a 20 foot wide

access and utility right of way in addition to necessary sloping for stability and safety reasons, the total affected area will likely exceed 25,000 square feet (10x their stated impact area)

Environmental Elements 1.f. - Widening the road and necessary removal of vegetation will cause at least some erosion. Given the proximity of the residences to the east, there is a significant chance that erosion could deposit sediment on adjoining properties.

Project Proponent should develop their Stormwater Pollution Prevention Plan (SWPPP) with a focus on keeping sediment deposits from occurring on neighboring properties.

Environmental Elements 1.g. - The 12 ft wide road and 50x50 site will be approximately 11,500 square feet, not 5,000 as stated.
A SWPPP needs to be developed with clear indications of Best Management Practices. For any project where grading or clearing of vegetation is expected, it is unacceptable to say that no measures to control erosion are anticipated.

Environmental Elements 2.c. - <!--[endif]-->By design, there will be a generator on site. If the generator is powered by a combustion engine, there will be emissions as well as noise.

Page 70

Environmental Elements 4.b. - There will also be some vegetation removed to accommodate the access road.

Environmental Elements 4.d. - Current vegetation will be thinned due to construction activities. Remaining vegetation will not likely be sufficient for screening.

Environmental Elements 4.e. - A plant survey will be needed prior to construction to determine the answer to this question. Residents in the area have small children, pets, and livestock that are susceptible to some noxious plants. Project Proponent needs to provide evidence to the public that they have not and will not contribute to the spread of any Class A, B, or C Weed.

Page 71

Environmental Elements 6.a. - Describe the fuel type of the generator.

Environmental Elements 7.a. - Fueling of equipment and the generator will pose a potential for fire or spill. Increased likelihood of lightning strikes which may cause a fire.

Page 72

Environmental Elements 7.a.5. - Provide documentation that proves nearby

residence exposure levels fall within an acceptable range according to the FCC.

Environmental Elements 7.b.2. - “Minimal” is a subjective term. The project site is a VERY quiet residential area. “Minimal” noise from a generator may not bother someone who lives in a city. However, even a small generator will significantly increase the ambient noise in this quiet residential area.

What is the project proponent doing to ensure they do not create a nuisance as defined under RCW 7.48 of Washington State Law?

Environmental Elements 7.b.3.- This is unacceptable. In the previous answer, the project proponent stated there would be “minimal” noise. If it is “minimal” what levels of noise will the neighboring residents hear? If it is “no noise” that needs to be stated above.

Page 73

Environmental Elements 8.l.- As stated before, existing vegetation will be thinned or removed.

Page 74

Environmental Elements 10.b. - This is a contradictory statement. The project proponent states no obstruction or alteration is anticipated. Then, in the next sentence, admits that there will be some visual impact.

The views are currently of a natural skyline. The photo simulations very clearly show how the view will be altered by an unnatural structure.

Environmental Elements 10.c. - As stated before, existing vegetation will be thinned or removed.

Page 76

Environmental Elements 14.a. - Skyview Drive is a private road and privately maintained. Project Proponent needs to include an explanation of how they will get equipment along the road (10 ft wide) without causing damage. Currently, the paved portion of Skyview Drive is free from any significant damage such as potholes, depressions, sloughing, etc.

Environmental Elements 14.c. - My understanding is that they need a 12 foot wide road. Skyview Drive is 10 feet wide. How will they get up the road without improvements?

Environmental Elements 14.g. - Skyview Drive is a one-lane steep road. Any additional vehicle on the road will cause impacts. Project Proponent needs to, at a minimum, describe how they will manage traffic when accessing the site.

Page 77

Environmental Elements 16.b. -This is the first mention of fiber. It is not shown or discussed in any of the maps. Project Proponent needs to provide a map showing where trenching for fiber will take place.

Thank you,
Alan

The site is located on property zoned RDD-5 Rural Development District. Lewis County code references Wireless Communications Facilities in LCC Chapter 15-50. The proposal is classified as a Wireless Communication Facility (WCF) (LCC 15.50.020(24)). A new WCF is permitted in the RDD-5 zone with a Type III Wireless Communication Facility application (LCC 15.50.025(3) & 15.50.040(3)a).

SEPA

A wireless service tower less than sixty feet in height that is located in a commercial zone is exempt from the requirements of RCW 43.21C.030(2)(c), (RCW 43.21C.0384). The proposal is over 60' in an RDD-5 zone and therefore does not meet this requirement (please find the attached SEPA checklist attached as Exhibit D).

Existing Use

The subject parcel is undeveloped.

Access/Circulation

1 The site will be accessed from the existing entry off Skyview Drive. There are no traffic impacts associated with these types of facilities as they are unmanned and require infrequent maintenance.

FCC/FAA

Harmoni Towers will conform to all FAA regulations (please see FAA determination attached as Exhibit E). Verizon Wireless has a license from the FCC to provide wireless communications in the Lewis County.

V. CRITERIA COMPLIANCE NARRATIVE

The Lewis County Code has specific requirements regarding the development of Wireless Communication Facilities. The following sections address each of the requirements that are applicable in the order they appear.

3

15.50.025 Site location of wireless communication facilities.

(1) Location Priorities. New wireless communications facilities shall be in conformance with all applicable standards as provided by this chapter. Facility preferences are listed in descending order with the highest preference first.

- *(a) Collocation with legally existing WCFs on support structures or support towers in nonresidential and nonschool zone areas;*
- *(b) Collocation with legally existing WCFs on support structures or support towers in residential and school zone areas;*
- *(c) New attached WCFs on support structures not currently used for other WCFs, in nonresidential and nonschool zone areas;*
- *(d) New attached WCFs on support structures not currently used for other WCFs, in residential and school zone areas;*
- *(e) New support towers.*

Summary of Comments on WCF25-0002_Application_Documents_Combined.pdf

Page:8

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 7:55:09 AM

Access to the site needs to be described from Birley Road. Skyview Drive is a private road, and the project proponent will be required to adhere to the access easement which does not allow for any vegetation clearing or trimming. Additionally, the easement only allows for access over an approximate 10 foot wide existing road. The Project Proponent will need to get approval from neighboring property owners to conduct any activity other than driving along the existing road.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 8:06:46 AM

Although they may be minimal, there are traffic impacts. However, in the proposed location, those minimal impacts are increased due to the one-way road. Project Proponent will need to get approval from neighboring property owners to use their driveways as pull-outs to allow traffic to pass.

Number: 3 Author:ctt893 Subject:Note Date:8/28/2025 8:22:38 AM

The project proponent did not address 15.50.010(2) which states the purpose of the Chapter is to “encourage the location of support towers and antenna arrays in nonresidential and nonschool zones” (emphasis added)

Response: The proposal is for a new support tower which is 5th in order of preference. There are no collocation or support structure opportunities within the geographic area required to meet the applicant's engineering requirements and coverage objective. There are no opportunities higher in preference therefore the proposal is for a new support tower in compliance with this section.

(2) Lease Areas.
(a) Lease areas for new support towers shall be created in accordance with state and county platting laws, as applicable, or shall be created by binding site plan in accordance with RCW 58.17.035 and LCC Title 16.
(b) Except as otherwise required in this chapter, lease areas for new support towers shall be exempt from all lot standards of any zone in which they are permitted.

Response: Please find the attached redacted lease (Exhibit C) between the applicant and the property owner. The applicant will provide any other documentation required in compliance with this section.

(3) Zoning Requirements. Not withstanding the siting preferences recommended under subsections (1)(a) through (e) of this section, wireless communications facilities are permitted in all county zones, within and without the urban growth areas, consistent with the provisions of this chapter and, in particular, the development and design standards under LCC 15.50.030 and 15.50.035. [Ord. 1177A §2, 2001]

Response: The proposal is classified as a Wireless Communication Facility (WCF) (LCC 15.50.020(24)). A new WCF is permitted in the RDD-5 zone with a Type III Wireless Communication Facility application (LCC 15.50.025(3) & 15.50.040(3)a). The scope of the proposed project and specific information regarding zoning specifications and response to Lewis County code requirements are found below in compliance with this section.

15.50.030 Development standards.

(2) New Support Towers. The following standards shall apply to new support towers:

(a) All new support towers shall accommodate collocation opportunities for a minimum total of two antenna arrays. A height bonus of up to 20 percent of the maximum tower height allowed in LCC 15.50.060(A)(2)(a) is allowed with one or more additionally proposed antenna arrays if the screening requirements of LCC 15.50.060(A)(2)(b) are met.

Response: The proposal facility is designed for 3 additional collocators (total of 4) in compliance with this section.

(b) A support tower owner approved under this chapter shall not deny a wireless provider the ability to collocate on their facility at a fair market rate or at another cost basis agreed to by the affected parties.

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:24:48 AM
This statement is slightly misleading. It is more accurate to state that this is the LEAST preferable type of facility according to the Code.

Number: 2 Author:ctt893 Subject:Rectangle Date:8/28/2025 8:23:54 AM
The proposal is for a new support tower which is 5th in order of

Number: 3 Author:ctt893 Subject:Rectangle Date:8/28/2025 8:23:59 AM

Number: 4 Author:ctt893 Subject:Note Date:8/28/2025 8:29:40 AM
This is a potential 90 year lease. During which time, surrounding properties will be devalued due to proximity to a commercial tower. According to The National Business Post, property values could be reduced by up to 20%.

Lewis county stands to lose tax revenue due to the devaluation of surrounding property.

Response: The proposal facility is designed for 3 additional collocators. It is the intention of Harmoni Towers to market the facility to other providers at an agreed cost. compliance with his section.

(c) New support tower installations shall be a minimum of 1,000 feet from designated scenic highways located outside of incorporated areas within the county.

Response: The proposed facility is a approximately 4500 feet from US Route 12 (a designated scenic highway) in compliance with this section.

(d) New support towers shall be a minimum of 1,000 feet from all sites listed on the National Register of Historic Places;

Response: There are no Historic Places shown on the National Register of Historic Places map (attached as Exhibit F) within 1000 feet of the proposed facility in compliance with this section.

(e) New support towers within a 1,000 feet of a priority habitat or endangered/threatened species area shall be reviewed for possible impacts to fish and wildlife.

Response: The proposed facility should have no impact to any priority habitat. Please see the Washington State Priority Habitat and Species Report (attached as Exhibit G).

(f) New support towers within one mile of any public safety building such as a police or fire station shall be reviewed with Lewis County Emergency Services and Emergency Management for possible interference with public safety communications.

Response: The applicant for the proposed facility will comply with any requirements from Lewis County Emergency Services and Emergency Management based upon their review of the application in compliance with this section.

(g) Final site plan approval for support towers shall not be issued to infrastructure providers until one or more wireless communications service providers that are to use the support tower have been identified to the county.

Response: Verizon Wireless will use the proposed Harmoni Towers support tower in compliance with this section.

***15.50.035 Design standards**.*
(1) Height. The following height restrictions for new WCFs shall apply:

(b) New Support Towers. New support tower heights are limited to the following:
(i) In rural areas the maximum height shall be 150 feet.

Response: The proposed facility tower is designed with a height of 150 feet in compliance with this section.

(2) Setbacks.

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:33:01 AM

All considerations for the granting of this permit should consider cumulative impact (traffic, noise, health issues, etc.) of four facilities, not just the impact of the initial tower.

(a) All new support towers in rural areas shall maintain a minimum 50-foot setback from the property line of the parent parcel or a distance equal to or greater than the tower height from the nearest residence or school facility on adjacent parcels, whichever is greater.

Response: The proposed facility tower setbacks are 147' to the south, 178' to the west, 507' to the north , and 268' to the east. The setbacks for the facility exceed the minimum setback required in compliance with this section.

(c) Setbacks for auxiliary structures shall be those of the underlying zoning district or a minimum of 25 feet, whichever is greater.

Response: The proposed facility ground mounted equipment exceed the minimum setback in compliance with this section.

(3) Landscaping and Screening.

(a) A landscaping and screening plan, as applicable, shall be submitted with all new support tower applications.

Response: The proposed facility will be surrounded by a site obscuring fence which will screen the equipment from view. Existing trees and vegetation on the perimeter of the property will be retained which will provide natural landscaping and screening (please see photo simulations attached as Exhibit H).

(4) Color. For all new wireless communications facilities, the following criteria shall apply:

(a) Unless otherwise required by the FAA, all support towers and antennas shall have a nonglare finish and blend with the natural background.

Response: The proposed facility tower will be painted with a non glare finish and blend with the natural background in compliance with this section.

(5) Lighting. Except as required by the FAA, artificial lighting of wireless communications towers shall be prohibited. When allowed under FAA regulations, white strobe lighting of wireless communications towers shall be timed or photocell-controlled to operate only during daylight conditions; red strobe lighting is permissible at all times. Security lighting for equipment shelters or cabinets and other on-the-ground auxiliary equipment is allowed, as long as lighting utilizes "cut-off" type fixtures and is down-shielded to keep direct light within the site boundaries.

Response: Harmony Towers received an FAA determination outlining that the proposed facility will not create any hazard to air navigation. No lighting is required. (Please see the attached FAA determination attached as Exhibit E).

15.50.040 Permitting process.

Applications for the locating and development of wireless communications facilities, and permit approval shall include the following:

(1) Application content for all facilities:

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:34:52 AM

Minimum setback distance is the height of the tower (150 ft). Therefore, Project Proponent is out of compliance based on the setback distances stated here.

(a) A narrative demonstrating how the proposal meets the criteria in the above sections involving Site Location, Development Standards, and Design Standards.

Response: Please find the attached narrative submitted with this application in compliance with this section.

(b) A comprehensive description of the existing or proposed facilities including the technical reasons for the design and configuration of the facility, design and dimensional information, coverage schemes, and the capability of future collocation opportunities.

Response: Please find the comprehensive description of the proposed facilities, technical reasons for design, dimensional information and capability of future collocation captured in the attached narrative, site plans, RF justification letter, and other materials submitted with this application in compliance with this section.

(c) Documentation that establishes the applicant's right to use the site shall be provided at the time of application by a copy of the proposed lease agreement, easement agreement or license agreement; or, in the alternative, a copy of a recorded memorandum of lease (or other agreement) between the parcel owner(s) and the applicant.

Response: Please see the redacted lease (attached as Exhibit C) establishing the applicants right to use the site in compliance with this section.

(d) If camouflage technology is proposed, the applicant shall provide a complete description of the suggested camouflage, including style and materials to be used, a photographic depiction of the proposed facility, and a maintenance plan detailing provisions for the continued effectiveness of the suggested camouflage for the life of the facility.

Response: The proposed facility is not designed with camouflage technology. The proposed facility will be designed with a slender profile monopole structure, painted to blend with the area, and placed within a fenced area with privacy slats for screening. The existing vegetation on the perimeter of the undeveloped property will help screen the facility from view (please see photographic depictions of the proposed facility attached as Exhibit H).

(e) An analysis of the proposal area and discussion of factors influencing the decision to target the proposed location. Such analysis shall include the good faith efforts and measures taken to secure a higher priority location; how and why such efforts were unsuccessful; and how and why the proposed site is essential to meet service demands for the geographic service area.

Response: The Verizon Wireless engineering coverage objective is the Mossy Rock area of Lewis County (please see RF engineering letter and propagation maps attached as Exhibit B). In order to meet the coverage objective, a geographic target area of approximately 1/4 of a mile in diameter was identified (please see Search Target Area Map attached as Exhibit I). The proposed site property parcel #028513011000 is located in the center of the search area and is the highest in elevation of any

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:48:19 AM

I did not find a narrative which includes location, development standards, or design standards. Project Proponent needs to make this narrative available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 8:42:40 AM

The easement from Birley grants access along the “existing gravel road” It does not grant authority for any vegetation trimming or clearance or widening of the road.

Residents in this area have, at their own expense, paved a portion of the road. The paved area and the gravel portions of the easement are approximately 10 feet in width.

According to the original language when the easement was granted (1978) no rights were granted except for travel along the "existing gravel road." Since there are no survey points or measurements from the center line of the road, the easement limits are at the outside boundary of the gravel/paved path. In this case approximately 10 feet wide. Any encroachment, improvement, modification, or other activity outside that limit would require the authorization of the neighboring landowner.

property in the ring. There are no higher priority/preference locations in the target area. Other property locations within the target area drop in elevation by approximately 100 feet which create engineering obstruction and are the same in location priority/preference. The proposed facility is the highest available priority/preference location and is essential to meet service demands for the geographic service area in compliance with this section (please see RF engineering letter and propagation maps attached as Exhibit B).

(f) The application materials shall include a photographic analysis of the proposed site, including a representation of existing conditions and photographic simulations depicting views of any new support structures or towers.

Response: A photographic analysis of the proposed site including a representation of existing conditions and photographic simulations depicting views of the facility is included with this application in compliance with this section (please see photo simulations attached as Exhibit H).

(g) Any additional applicable information the administrator deems necessary to adequately review the proposal.

Response: The applicant will provide any additional information at the request of the administrator in compliance with this section.

(2) Additionally, application content for new support towers:
(a) A site plan, which in addition to the relevant tower descriptions above-noted, clearly indicates the location of the proposed facility in relation to:
(i) Significant features within 1,000 feet including, but not limited to, existing and/or proposed site structures, public rights-of way, residential developments (i.e., subdivisions, master planned communities, and urban residential areas), adjacent land uses, and properties used for public purposes;
(ii) Governmental jurisdictional boundaries within 500 feet of the proposal boundaries; and
(iii) Priority habitat and endangered/threatened species habitat areas within a 1,000 feet as mapped or defined by the state or federal Departments of Fish and Wildlife.

Response: A site plan is submitted with this application indicating the location of the facility along with significant features. No governmental jurisdictional boundaries are identified within 500 feet. There are no priority habitat or endangered species habitat areas within 1000 feet (please see the attached PHS report from Washington Department of Fish And Wildlife attached as Exhibit G).

(b) Elevation drawings of the proposed site and facility, including the tower, equipment structures, antennas, mounts and, if applicable, any existing structures, if deemed relevant for screening or analyses. Other applicable features, including but not limited to security fencing and screening shall be included.

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:46:03 AM

The photo analysis lacks existing conditions from the point of entry onto private property. When turning off of Birley onto Skyview Dr, one immediately enters onto a private road. This road is maintained by the residents, and a portion of it was recently paved. The project Proponent must provide photographic analysis of any existing damage to the road as well as status of adjacent and overhanging vegetation.

Additionally, there is no photographic analysis of the site from the nearest residential structures on the eastern side of the site.

Response: Please find the elevation drawings submitted with the site plans as page A4 included with the application in compliance with this section.

(c) Proposals for new support towers shall include a detailed landscaping and screening plan, including existing and proposed vegetation, installation procedures, and landscaping/screening maintenance plans.

Response: The existing vegetation at the perimeter of the property provides sufficient landscaping and screening meeting the intent of this section.

(d) Applicants shall present an analysis of existing WCF's within the intended service area, describing the status of collocation opportunities at these sites. The county may deny a new support tower proposal if future collocation is not provided or if the applicant is unable to demonstrate to the satisfaction of the administrator that collocation on an existing tower is not feasible within the intended service area.

Response: There are no colocation opportunities within the target service area. The proposed facility will be designed for future collocation. Collocation on an existing tower is not feasible within the intended service area.

(e) The application materials shall include a report stamped, dated and signed by a licensed professional engineer registered in the State of Washington demonstrating the following:
(i) The facility complies with all requirements of the International Building Code;
(ii) The structural capability of the facility will support collocated antennas (if applicable);
(iii) The facility complies with all applicable standards of the FAA and FCC, including RF energy standards.
(iv) The basis for the calculation of capacities.

Response: A structural analysis along with foundation design showing the facility complies with all requirements of the International Building Code and structural capability along with the basis for the calculations will be submitted with the building permit application. An FAA determination is included with this application (attached as Exhibit E). An RF energy analysis outlining FCC compliance will be submitted with the building permit application and may be included as a condition of the WCF application approval.

(f) The location of new support towers in relation to any national wildlife refuge.

Response: According to the US Wildlife Service map there is no Wildlife Refuge within the vicinity of the proposed facility (Please see US Wildlife Refuge Map attached as Exhibit J).

(g) Applicants shall provide evidence of compliance with FAA requirements at the time of application.

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:51:41 AM

I did not find the evaluation drawings. Project Proponent needs to make these drawings available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 8:57:55 AM

Project Proponent has not included a detailed landscaping and screening plan which includes existing vegetation.

This section of the code REQUIRES a detailed plan to be included in the proposal.

Project Proponent needs to develop such plan and show what vegetation will remain after the site work is completed. The plan will then need to be available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Response: Please find the FAA determination included with this application (attached as Exhibit E).

(h) All applicable fees are paid at the time of application submission.

Response: The applicant will pay all applicable fees in compliance with this section.

Summary:

The proposed Harmoni Towers Verizon Wireless Mossyrock site will bring enhanced wireless communications to residents of Lewis county in the Mossyrock area. The facility was located and designed to be consistent with local ordinances and zoning regulations while providing the wireless communications coverage that is critical for emergency, business, and personal use. The proposed facility location is the highest in preference/priority.

The proposed Harmoni Towers Verizon Wireless Mossyrock site facility meets the requirements of The Lewis County Code LCC Chapter 15-50.

We appreciate the opportunity to make our proposal and to provide quality wireless communication services to the residents of Lewis County.

Sincerely,

Bill North
The North Group, Inc
on behalf of Harmoni Towers.

Attachments:

Legal description – Exhibit A
RF Justification Letter & Map - Exhibit B
Redacted Lease – Exhibit C
SEPA Checklist – Exhibit D
FAA determination – Exhibit E
National Register of Historic Places map – Exhibit F
Washington State Priority Habitat and Species Report – Exhibit G
Photo Simulations – Exhibit H
Search Target Area Map – Exhibit I
Wildlife Refuge Map attached as Exhibit J

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 8:59:23 AM

According to Chapter 15.50 of the Lewis county code, this facility is neither consistent with local ordinances (This chapter is established to encourage construction of towers in non residential areas.) nor located in the highest preference (this is the LEAST preferable facility according to the chapter).

A. Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   Mossyrock

2. **Name of applicant:**

   Harmoni Towers/Verizon Wireless

3. **Address and phone number of applicant and contact person:**

   HARMONI TOWERS

   6210 Ardrey Kell Rd

   Charlotte, NC 28277

   Bill North 425-876-2909

4. **Date checklist prepared:**

   5/7/2025

5. **Agency requesting checklist:**

   Lewis County

6. **Proposed timing of schedule (including phasing, if applicable):**

   Construction 2026 / no phasing

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No Future activity is included in this proposal or anticipated at this time

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   Phase 1 report

   NEPA

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   No

10. **List any government approvals or permits that will be needed for your proposal, if known.**

    SEPA Determination

    WCF Type III approval

    Building Permit

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 9:09:24 AM

This answer is clearly contradicted by the Project Proponent in their responses to the Code above.

Project proponent stated previously that this facility is “designed for 3 additional collocators. It is the intention of Harmoni Towers to market the facility to other providers"

The entire SEPA checklist is predicated on a single facility. At the same time, the Project Proponent indicates that they have plans for future additions, expansion, or further activity because they have designed it for additional collocators and they intend to market that additional capacity.

At the very least, Project Proponent should revise the SEPA checklist and resubmit it for review based on the potential for additional facilities.

Clay, sand, and gravel. No agricultural soils.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Minimal leveling is required for construction and access. The graveled fenced area is approximately 2500 square feet.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

No erosion is anticipated

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

The property is currently undeveloped with existing gravel drive access. The site will include less than 5000 square feet of impervious surface consisting of the proposed crushed washed gravel within the 50'x 50' fenced area and the improvement of the existing access.

Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

None anticipated

2. Air

Find help answering air questions[4]

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Temporary minor emissions will result from equipment during the construction phase. Construction practices will comply with applicable air quality regulations. Upon completion, normal vehicular traffic emissions will occur as a result of monthly maintenance visits to the facility.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

No emissions generated; hence no reduction measures are required.

[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 9:16:58 AM

It is my understanding that there will be a 12 ft wide road as well as an additional 8ft wide easement for utilities. The current road access to the site appears to be approximately 10 ft wide with steep (up to 40%) slopes on both the uphill and downhill sides. In order to establish a 20 foot access and utility easement, significant effort will go into widening the road. The potential for rocks or trees to fall onto the residences to the east is significant.

The total affected area will include grading necessary for expansion of the access road. The access road appears to be approximately 750 feet long. with a 20 foot wide access and utility right of way in addition to necessary sloping for stabilty and safety reasons, the total affected area will likely exceed 25,000 square feet (10x their stated impact area)

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 9:22:25 AM

Widening the road and necessary removal of vegetation will cause at least some erosion. Given the proximity of the residences to the east, there is a significant chance that erosion could deposit sediment on adjoining properties.

Project Proponent should develop their Stormwater Pollution Prevention Plan (SWPPP) with a focus on keeping sediment deposits from occurring on neighboring properties.

Number: 3 Author:ctt893 Subject:Note Date:8/28/2025 9:27:04 AM

The 12 ft wide road and 50x50 site will be approximately 11,500 square feet, not 5,000 as stated.

Number: 4 Author:ctt893 Subject:Note Date:8/28/2025 9:24:47 AM

A SWPPP needs to be developed with clear indications of Best Management Practices

For any project where grading or clearing of vegetation is expected, it is unacceptable to say that no measures to control erosion are anticipated.

Number: 5 Author:ctt893 Subject:Note Date:8/28/2025 9:28:12 AM

By design, there will be a generator on site. If the generator is powered by a combustion engine, there will be emissions as well as noise.

☐ **water plants: water lily, eelgrass, milfoil, other**

☐ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

A minimal amount of trees and shrubs will be removed to accommodate the 50'x50' fenced area.

c. List threatened and endangered species known to be on or near the site.

None known

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

Existing vegetation around the perimeter of the facility will be retained as screening.

e. List all noxious weeds and invasive species known to be on or near the site.

None known

5. Animals

Find help answering animal questions[8]

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.

Examples include:

- **Birds: hawk, heron, eagle, songbirds, other:**
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

b. List any threatened and endangered species known to be on or near the site.

Per the Washington Fish and Wildlife Priority Habitats and Species report dated 4/29/2025 listed species include Rocky Mountain Elk and Riverine. No species were identified or observed on site.

c. Is the site part of a migration route? If so, explain.

None known – Please see Washington Fish and Wildlife PHS report dated 4/29/2025

d. Proposed measures to preserve or enhance wildlife, if any.

None are needed

e. List any invasive animal species known to be on or near the site.

None known

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 9:29:01 AM
There will also be some vegetation removed to accommodate the access road.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 9:29:44 AM
Current vegetation will be thinned due to construction activities. Remaining vegetation will not likely be sufficient for screening.

Number: 3 Author:ctt893 Subject:Note Date:8/28/2025 9:47:20 AM
A plant survey will be needed prior to construction to determine the answer to this question.

Residents in the area have small children, pets, and livestock that are susceptible to some noxious plants.

Project Proponent needs to provide evidence to the public that they have not and will not contribute to the spread of any Class A, B, or C Weed.

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

   Electricity will be used to operate the radio equipment and antennae

b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

   No

c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

   Low power consumption requirement for proposed equipment.

7. Environmental health

Health Find help with answering environmental health questions[10]

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

   No

   1. **Describe any known or possible contamination at the site from present or past uses.**

      There are no known contaminates from past or present use.

   2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

      There are no known or existing hazardous chemicals or conditions on the property.

   3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

      There are no toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction. A future diesel generator may be placed on site. All liquid will be contained within the designed tank and comply with all fire safety regulations. No other conditions exist that will be impacted.

   4. **Describe special emergency services that might be required.**

[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou
[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 9:48:28 AM
Describe the fuel type of the generator.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 9:50:31 AM
Fueling of equipment and the generator will pose a potential for fire or spill.

Increased likelihood of lightning strikes which may cause a fire.

None required

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   All radio frequency emissions are regulated by the Federal Communications Commission.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   None. Ambient noise will not affect this project.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   There will be some traffic and construction noise associated with the installation of the facility during the 4 - 6 weeks of construction. Minimal noise will be generated by the communications facility when it is fully operational. There may be minimal noise associated with monthly service visits.

3. **Proposed measures to reduce or control noise impacts, if any:**

   No noise is anticipated therefore, no measures are proposed.

8. Land and shoreline use

[Find help answering land and shoreline use questions](#)[11]

a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

   The property is undeveloped. Adjacent uses are rural residential.

b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

   No. There is no agricultural or forest land of long-term commercial significance that will be converted to other uses because of the proposal.

   1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

      No.

c. **Describe any structures on the site.**

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 9:52:05 AM

Provide documentation that proves nearby residence exposure levels fall within an acceptable range according to the FCC.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 9:53:52 AM

“Minimal” is a subjective term. The project site is a VERY quiet residential area. “Minimal” noise from a generator may not bother someone who lives in a city. However, even a small generator will significantly increase the ambient noise in this quiet residential area.

What is the project proponent doing to ensure they do not create a nuisance as defined under RCW 7.48 of Washington State Law?

Number: 3 Author:ctt893 Subject:Note Date:8/28/2025 9:57:13 AM

This is unacceptable. In the previous answer, the project proponent stated there would be “minimal” noise. If it is “minimal” what levels of noise will the neighboring residents hear? If it is “no noise” that needs to be stated above.

There are no structures on site. The property is undeveloped.

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

RDD-5 Rural Development District-5

f. What is the current comprehensive plan designation of the site?

Rural

g. If applicable, what is the current shoreline master program designation of the site?

Not applicable

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No

i. Approximately how many people would reside or work in the completed project?

None

j. Approximately how many people would the completed project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any.

None required

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

The project design will comply with Lewis County codes and ordinances. The project will be located on an undeveloped lot with existing vegetation around the perimeter utilized as screening.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

Not applicable

9. Housing

Find help answering housing questions[12]

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None included in this proposal

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 9:59:12 AM
As stated before, existing vegetation will be thinned or removed.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None

c. Proposed measures to reduce or control housing impacts, if any:

No housing impact anticipated, therefore no proposal is necessary.

10. Aesthetics

Find help answering aesthetics questions[13]

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The monopole will be 150' in height.

b. What views in the immediate vicinity would be altered or obstructed?

No view alteration or obstruction is anticipated. Included in the application are photo simulations which provide detail that visual impact will be negligible.

c. Proposed measures to reduce or control aesthetic impacts, if any:

The facility is being placed on a 6.5 acre undeveloped property with existing vegetation around the property perimeter providing screening.

11. Light and glare

Find help answering light and glare questions[14]

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No

c. What existing off-site sources of light or glare may affect your proposal?

None

d. Proposed measures to reduce or control light and glare impacts, if any:

None are anticipated

[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics
[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 10:00:24 AM
This is a contradictory statement. The project proponent states no obstruction or alteration is anticipated. Then, in the next sentence, admits that there will be some visual impact.

The views are currently of a natural skyline. The photo simulations very clearly show how the view will be altered by an unnatural structure.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 10:01:03 AM
As stated before, existing vegetation will be thinned or removed.

14. Transportation

Find help with answering transportation questions[16]

a. **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

   The site will be accessed from Birley Road then Skyview Drive to the location.

b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

   Not applicable

c. **Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

   No

d. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

   No

e. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

   One vehicle semi-monthly. Typical maintenance schedule.

f. **Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

   No

g. **Proposed measures to reduce or control transportation impacts, if any:**

   None are necessary

15. Public services

Find help answering public service questions[17]

a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

   No. The site is unmanned. There is no increased need for public services beyond those which are already provided.

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation
[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 10:02:53 AM

Skyview Drive is a private road and privately maintained. Project Proponent needs to include an explanation of how they will get equipment along the road (10 ft wide) without causing damage. Currently, the paved portion of Skyview Drive is free from any significant damage such as potholes, depressions, sloughing, etc.

Number: 2 Author:ctt893 Subject:Note Date:8/28/2025 10:03:33 AM

My understanding is that they need a 12 foot wide road. Skyview Drive is 10 feet wide. How will they get up the road without improvements?

Number: 3 Author:ctt893 Subject:Note Date:8/28/2025 10:05:15 AM

Skyview Drive is a one-lane steep road. Any additional vehicle on the road will cause impacts. Project Proponent needs to, at a minimum, describe how they will manage traffic when accessing the site.

b. Proposed measures to reduce or control direct impacts on public services, if any.

None

16. Utilities

Find help answering utilities questions[18]

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Centurylink – Fiber and utility trenching

Lewis County PUD – power and utility trenching

C.Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Bill North

Type name of signee: Bill North

Position and agency/organization: The North Group, Inc.

Date submitted: **May 7, 2025**

[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature

Number: 1 Author:ctt893 Subject:Note Date:8/28/2025 10:06:38 AM
This is the first mention of fiber. It is not shown or discussed in any of the maps. Project Proponent needs to provide a map showing where trenching for fiber will take place.

From: Fernando Cuglievan
To: Preston Pinkston
Subject: Wcf25-002,sep25-0021 Verizon wireless tower 262 skyview dr.
Date: Saturday, August 30, 2025 7:20:37 AM

Good morning Preston. On behalf of the residents residing on the Degoede Hill, Breezy lane, Degoede drive we would oppose the build of this tower as it would almost be in our backyard. The elevation of our homes would almost be at the same eye level of the proposed tower therefore clashing with the surrounding views in every direction from the nearby homes. Furthermore Verizon already has 5G service in the area so the need for this tower could be of better use at other strategic locations. Please consider our objection of this tower as it will followed by everyone's signatures of the petition.

Regards

Fernando Cuglievan
158 Breezy Ln, Mossyrock, WA 98564

From: Fernando Cuglievan
To: Preston Pinkston
Subject: Re: Wcf25-002,sep25-0021 Verizon wireless tower 262 skyview dr.
Date: Saturday, August 30, 2025 2:03:40 PM

The proposed location of this tower would be near the flight path of Eagles and Osprey birds cruising from lake Mayfield, Rife lake and Rife Dam and over the mountain in between. This tower would endanger the protected animals of this area. It is very surprising that this selected area has been determined to be recreational by the county and there is a proposal to eliminate its natural state. Please see that the tower be located on a different location.

Regards
Fernando Cuglievan
158 Breezy Ln, Mossyrock, WA 98564

On Sat, Aug 30, 2025, 7:20 AM Fernando Cuglievan <fcugliev@gmail.com> wrote:

> Good morning Preston. On behalf of the residents residing on the Degoede Hill, Breezy lane, Degoede drive we would oppose the build of this tower as it would almost be in our backyard. The elevation of our homes would almost be at the same eye level of the proposed tower therefore clashing with the surrounding views in every direction from the nearby homes. Furthermore Verizon already has 5G service in the area so the need for this tower could be of better use at other strategic locations. Please consider our objection of this tower as it will followed by everyone's signatures of the petition.
>
> Regards
>
> Fernando Cuglievan
> 158 Breezy Ln, Mossyrock, WA 98564

From: Tristan Kirk
To: Preston Pinkston
Subject: Re: Permit Number(s): WCF25-0002, SEP25-0021
Date: Saturday, August 30, 2025 1:22:01 PM

Hello Mr Pinkston -

I would greatly appreciate denial of any permit for further wireless communication facility on Skyview Drive in Mossyrock. I live in the immediate vicinity, on the hillside and on Birley Rd, and feel my home and family would be impacted by such a structure. Further expansion of infrastructure simply means more people, more pollution, more disruption in what is already an area growing more 'filled in' by the year. We should resist as long as we can, in every place we can, or the whole world might be captured.

Have you not seen less wilderness and less health as the years go by?

Thank you for your consideration,
G Walker
288 Birley Rd, Mossyrock

From: Joseph Blum
To: Preston Pinkston
Subject: Verizon 150" communication tower
Date: Sunday, August 31, 2025 4:52:32 PM

Preston Pinkston planner
Lewis County Planning Division

To Whom It May Concern;

I am sending this comment as a citizen of Lewis County. I live between two cell towers very close together guessing within two miles of each other. I do not believe another unsightly and environmental and health hazard is necessary for the area. I see it as nothing more than a money grab for the permitting, inspections etc. Also the people control who is on the planning dept. We will use our voting power as our voice. I am vehemently against any more cell towers in the area for both as ethics and health concerns what about any radiation etc that is released from these towers affecting both humans and animals. Thank you for your attention to this matter.

Sincerely,
Joseph Blum
213 Swigert Rd
Mossyrock.

From: Douglas Jarboe
To: Preston Pinkston
Subject: Against permit #WCF25-0002, Sep25, 20021
Date: Monday, September 1, 2025 10:33:15 AM

I am against the installation of the tower at 262 Skyview Dr, Mossyrock, WA 98564

Vehicle traffic required for installation and maintenance will cause undue wear and tear on the private road leading to the site. ALL homeowners in the neighborhood own and maintain this road (Skyview Drive). This road was recently re-paved and re-graveled at the owner's expense. Several owners are retired and living on fixed incomes. The installation of this tower will cause undue financial hardship for ALL owners.

I have not heard of a single resident living off Skyview Drive who wants this project to be allowed to continue.

Douglas Jarboe
127 Lakecrest Dr
Mossyrock, WA
910-973-3221

From: Shawn & Ed
To: Preston Pinkston
Subject: Permit #WCF25-0002. SEP25-0021
Date: Monday, September 1, 2025 5:33:47 PM
Attachments: IMG_7094.HEIC

I am writing to protest this cell tower smack in the middle of my view!
I didn't move to the country for cell tower views. My "nest egg" is invested in this view property, please don't mess it up! I've enclosed a picture, the proposed tower would be on the knob to the left, eclipsing our gorgeous mountain.
I'm sure there are many better places, or even better towers. Why 150'? Couldn't it be one of the little short camouflaged ones, without need for light on top?
Please consider all the people, not just the ones getting paid (who don't even live in Lewis County!) and yes, I am a Verizon customer.

Thank you,
Ed Ross
200 Ciannigan Hill Rd, Silver Creek

From: Shawn & Ed
To: Preston Pinkston
Subject: Permit #WCF25-0002. SEP25-0021
Date: Monday, September 1, 2025 5:15:40 PM

I'm writing to protest a 150 foot cell tower in the middle of my view!
We bought this property because of the amazing St. Helens view and the beautiful night sky. One badly placed cell tower could ruin both. Not just us, everyone on Pleasant Hill, Harmony Hill and all the others that I don't know the name of. I'm not sure, but I think you even enjoyed our view once- Ciannigan Hill during the pandemic? Anyway, it's a ridiculous placement surrounded by homes immediately, and by view homes all around, as well as the "scenic byway."
Thank You for your attention to this matter.

Shawn Ross
200 Ciannigan Hill Rd, Silver Creek, WA 98585

From: Doug Clyde
To: Preston Pinkston
Subject: Fw: Cell TowerApp, 262 Skyview Drive, Mossyrock, WA 98564
Date: Tuesday, September 2, 2025 9:57:22 AM

----- Forwarded Message -----
From: Doug Clyde <dosanclyde@aol.com>
To: preston.piinkston@lewiscountywa.gov <preston.piinkston@lewiscountywa.gov>
Sent: Tuesday, September 2, 2025 at 09:52:12 AM PDT
Subject: Cell TowerApp, 262 Skyview Drive, Mossyrock, WA 98564

I am writing to you with my comments in the hope it will cause the denial of the proposed cell tower at 262 Skyview Drive in Mossyrock, WA. Permit Number(s): WCF25-0002, SEP25-0021

For the following reasons, I believe this cell tower project should be denied:

1. This property is served by a PRIVATE road, paid for and maintained by property owners.

2. There is no HOA or CCRs. This was a requirement when most owners purchased their properties.

3. Safety is of utmost importance when traveling this private road. Knowing turnout locations, their limitations, and proper speed is critical.

4. We all bought these properties in beautiful Lewis County, especially this location. The quiet beauty and majestic views are stunning. A cell tower in the middle of this location eliminates that and does nothing but ruin our investments.

5. The monetary benefit to only one property owner who doesn't live here is a detriment to the other 21 owners. This financial loss would never be recuperated.

6. It is a fact that property values will drop steeply and never

7. Of all the other tall hilltops in this area or Lewis County, why would the county allow this 150 foot tower in an established neighborhood on a private road when every other owner is determined to fight this intrusion. There HAVE to be other locations that are more suitable and will not have less impact on so many people.

Doug Clyde, 119 Skyridge Lane (part of Skyview Drive), Mossyrock, WA 98564

the message is legitimate before opening it.

From: Doug Clyde
To: Preston Pinkston
Subject: 150 foot wireless facility at 262 Skyview Drive, Mossyrock, WA 98564 Permit: WCF25-0002, SEP25-0021
Date: Tuesday, September 2, 2025 11:37:11 AM

I wish to address 4 major concerns/objections regarding this project:

1. Road history and safety facts
2. Property values
3. Fire
4. Esthetics

Skyview Drive is a narrow, winding, one lane PRIVATE ROAD, built and maintained by the landowners. It began as a gravel road serving only 2 residents and was poorly maintained, rutted, full of potholes and barely navigable. It is NOT a county road and never could be as the requirements to upgrade it to the standards could never be met. There is absolutely no room to widen it anywhere. Eventually, new landowners were able to finance a chip sealed road part way up the hill, with the rest covered in gravel to serve the remaining owners. It requires new gravel and grading to maintain being passable. As more and more people bought and developed their properties, the road needed massive patching and work, done by willing and able landowners with others offering financial support. About 5 years ago the owners began seriously considering asphalt paving over the old very degraded chip seal. It took another 3 years after that to gather information, bids, and owner input to accomplish the task. In that time the cost skyrocketed over $20,000 in just one year to a final amount close to $130,000. Most owners chipped in over $8,000 to cover the cost. The gravel portion continued being difficult to maintain with increased traffic, trucks, and construction projects. That portion has become like a washboard in places. Trying to drive from the flatter portion, around a corner and up a hill is nearly impossible at times, especially in bad weather or snow. Again, owners are trying to maintain it. We are very protective and worried about further damage, safety, and inability to travel.

This road has several blind spots and few turnouts that would not accommodate oversize vehicles. When meeting oncoming traffic, you must either back up or down the hill, a lengthy distance before reaching a small turnout or someone else's driveway, a very difficult and unsafe maneuver for most drivers. There are NO shoulders on this road and what is there is very soft and gives way easily. If it is dark, rainy, foggy, snowy, or icy, and one lacks skill, there is only one direction a driver will go if they encounter someone and that is down the embankment and into the woods, a distance of 10-200 feet. Sometimes the fog is so dense you have to open your car door to see if you are still on the pavement. Reflectors have helped some but others run over them trying to navigate which makes navigation even more unsafe. Getting a tow truck up the hill on this road to help is next to impossible.

We have had to replace culverts under the road and along the sides to address the cracking and breaking of the culverts due to excessive weight demands and water

drainage issues. We saw rivers of water flowing down the pavement during heavy rainfall and melting snow which undermined and threatened the road several times. The wind blows every day, voraciously at times, especially during winter storms. There are MANY trees leaning over the road, and many trees have fallen, completely blocking it and damaging the pavement. Landowners have worked hard to come together to clear the trees and debris. Jets, airplanes, helicopters and large military transport planes routinely fly over us at very low altitudes, shaking the homes and making us fear they will hit trees or crash on us.

Finally, there is only one way in and out of the neighborhood, with no other means of escape, either short term or long term without driving or walking through someone's primitive pasture to gain access to the Coleman Road and DeGoede Drive areas near Doss Cemetery. This is of grave concern when it comes to further damage, blockages, maintenance and timelines required to give us access to Birley Road.

Property values are foremost on our minds. Most of us bought and developed our properties over many years for the wonderful territorial, lake and river views. We pay heavy taxes for the privilege and hope to live out our years here, as well as passing it on to heirs when this type of property is no longer available to buy. No one has ever tried to destroy or limit the enjoyment and value of our investments until now. Kevin Riffle asked for input and comments over a year ago asking for input/comments about erecting a cell tower on his property. ALL property owners were adamantly opposed for all the reasons you will be receiving. Emails will attest to these conversations and responses that he did not have plans to move forward and was disappointed by everyone's negativity. Obviously, he lied to us, as the application was signed very shortly afterwards last August. Meanwhile the property owners have been kept in the dark about this, no notices or communication were forthcoming, and we had under 18 days to write comments and mobilize. Ironically, the very small 9 x 12 sign was placed on the right side of the driveway under trees where its visibility and readability are next to zero unless you get out of your car and walk over to read it. This smacks of obvious deviant behavior to help Verizon and Kevin Riffle.

Best estimates show we would all lose at least 20% or more in value to our properties, even if we can get anyone to look at them! Does the county plan to reduce our taxes by 20% to satisfy the greed and monetary gains for just one person and company over the other 20 owners? Can you sustain over a $100,000 loss on your property that can never be recouped? Is Keven's passive income for his family fair to the rest of us when the rest of us will be footing the bill for him?

The proposed tower is in a residential area very close to several permanent homes who will have to look at this monstrosity every day, 24/7, from every angle and window of their homes, every time they go in and out of the neighborhood. It's not just our area that will be affected. Many new homes in the Coleman Road development, Harmony Homeowners Association on the Cowlitz River and Mayfield Lake, Pleasant Hill, Flynn Road, Cinebar Road, Birley Road, Del Ray, PanAm Blueberry Farm, all Highway 12 traffic, just to name a few, will all look at the tower. So much for the Scenic Byway.

There is an abundance of high hills in the Mossyrock area that are much taller and more rural than this site. Many of those areas are not located in a populated residential area that has so much to lose. Surely those areas without homes would be more suitable and less objectionable to this huge surrounding area. Has Verizon checked on other sites in the area?

Fire potential must also be addressed. With weather/climate change, we are experiencing more hot, dry weather that has dried out brush and stressed trees. There are mature maple, fir, alder, and hemlock trees that shed vast quantities of leaves and branches that form thick mats of flammable debris. Fire trucks and a helicopter would be helpless to stop a fire that could start from lightning strikes or sparks from a propane tank. Two years ago a major fire occurred on a hill near the bridge on 122 due to kids throwing fireworks into the hill. It took nearly 2 days to contain, and homes were threatened on that 4th of July weekend. A neighbor next to the proposed site had a brush fire last year that required several units to respond. Luckily, another neighbor was home that day to report the fire. The trucks had a difficult time getting up the hill to the site and were unable to get hoses close enough to the fire. Other trucks came across a pasture to access it from another angle. Lots of digging and shoveling for many hours finally contained it. Afterwards the fire department sent a report to Lewis County detailing the difficulty getting up our rural private road.

Esthetics plays a major role in this project. We stand to lose utter quiet, birds chirping, deer visiting, eagles, hawks, osprey, geese, sunrise and sunset views, unobstructed trees and views, stars, a clear sky and cloud formations, views of the Mossyrock landscape, the river and lake, and sleep. That will be replaced with the humming and vibration of a cell tower, light pollution, flashing red tower lights streaming into our windows, an obstructive 150 foot cell tower, construction noise, heavy equipment and non-local workers on end for months or longer, friendly conversations and socializing with neighbors and loss of the incredible neighborhood we all have spent years and expense to acquire. One person who does not even live here should not be able to take and destroy it all for personal gain!

YOU NEED TO VISIT THIS SITE IN PERSON. THIS PROJECT DOES NOT FIT HERE! WE DON'T WANT IT!

Sandra Clyde, 119 Skyridge Lane (accessed by Skyview Drive), Mossyrock, WA 98564

the message is legitimate before opening it.

9-1-25

PRESTON,

I AM FIRMLY AGAINST THE DECISION FOR LEWIS COUNTY TO ISSUE THE DNS FOR A CELL TOWER ON SKYVIEW DRIVE. I HAVE CONTACTED MY ATTORNEY FOR LEGAL COUNSEL ON THIS MATTER.

SINCERELY,

DAMIN PUNTILLO

D. Pantello
PO Box 626
Washougal WA
98671

PORTLAND OR RPDC 97
2 SEP 2025 PM 5 L
1775

Preston Pinkston
Lewis County Community Development
351 NW North St.
Chehalis WA 98532

98532-192651

From: Kathryn Jarboe
To: Preston Pinkston
Subject: Permit Number WCF25-0002, SEP25-0021
Date: Wednesday, September 3, 2025 10:59:37 PM

I'm writing this to let the county know that I am NOT in favor of a variance change for our neighborhood that would possibly enable a 5G cell tower to be constructed in our neighborhood. I am OPPOSED to a 150 foot high cell tower being built here at 262 Skyview Drive.

We are a small quiet neighborhood accessed by a private road which we, the owners maintain. The road was not designed to accommodate large vehicles. It is very narrow one lane road and requires cars to back up or down considerable distances when encountering another car.

There are two other neighborhoods which border our neighborhood. They are a very short distance from the proposed tower.

The residents of these two neighborhoods are very upset that they were not notified with signage like the one placed at the entrance to Skyview Drive.

There are children that live on our hill and several that live within approximately 400 feet of the tower and I am especially concerned for their future health.

Studies have indicated that 5G towers and their radio frequency emissions can cause medical issues such as DNA damage, headaches, tinnitus, memory issues, lack of restful sleep issues, rashes, digestive issues and more. Some of these health concerns can vary from short to long term. This is unacceptable! These health concerns should be enough to stop all 5G cell towers from being built near populated neighborhoods such as ours.

In the immediate area, there are several beekeepers hives which will be negatively impacted by the RF emissions. This is common knowledge among beekeepers.

There are two large blueberry farms within a mile of the proposed tower. The farms import tens of thousands of bees to assist in pollination. Studies have indicated that bees are adversely affected (killed) by towers such as the proposed 5G 150 foot tower at 262 Skyview Drive.

Mossyrock is a pristine and beautiful destination area for thousands of tourists. The proposed tower will be an eyesore to residents and visitors alike. It will negatively impact the rural area aesthetic.

I am also concerned that it will decrease the property value of our retirement home. Will my property taxes be reduced in proportion to the real estate market value decrease?

In closing, if cell towers are not allowed within 100-15O meters of schools, hospitals, or educational institutions, (the cell towers can harm young growing children and those with compromised health issues. Us old folks too!)…. why should one be built in my neighborhood?

Recent studies show that homes within 1000 to 2000 feet may be at increased risk of short term and long term health effects…so please don't approve the variance and build the 5G tower on the hills in the distance that is unpopulated.

Kathryn Jarboe
127 Lakecrest Drive
Mossyrock 98564

From: Tracy Lafayette
To: Preston Pinkston
Subject: Comment on Permit Number(s): WCF25-0002, SEP25-0021
Date: Wednesday, September 3, 2025 10:00:44 AM

Application from Verizon Wireless to build a 150 foot wireless communication facility at 262 Skyview Drive, Mossyrock,WA.

We are full time Mossyrock residents at 437 Birley Road and are against the building of this facility. We built our retirement house here 7 years ago and really enjoy the peaceful change from the city we lived in up north. We are also Verizon customers and do not have the best coverage currently so this would probably benefit us. My husband and I feel it is unfair for a person who owns land and does not live there to make money off installing a tower that may affect the health and property value of those around this property. Not to mention how this will degrade the wildlife and beauty of the area.

Tracy and Barb Lafayette
253-797-23336
437birley@gmail.com

From: Keith Corona
To: Preston Pinkston
Subject: Re: Permit#s wcf25-0002, sep25-0021
Date: Thursday, September 4, 2025 11:57:54 AM

Sorry forgot to include the picture

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From: Keith Corona <coronakd@gmail.com>
Sent: Thursday, September 4, 2025 11:54:43 AM
To: preston.pinkston@lewiscountywa.gov <preston.pinkston@lewiscountywa.gov>
Subject: Permit#s wcf25-0002, sep25-0021

Good morning Preston,
We are reaching out to let you know that the coronas are not wanting a 150ft tower with the possibility of 3 other towers built at the corner of our property. Our property borders the area where they want to build a tower and facility. The land that but up against the landing for the tower is where we put our animals. Goats, Cows and pigs. All that we raise to eat. I also don't think there will be enough area to set the tower and the facilities with out encroaching onto my property or making it unstable. I will include a picture from my front door. The tallest trees you will see is my corner. Right behind them is where the towers will be. They are going to be atleast 50ft above those trees. That is going to be an eyesore and also the noise it puts off is not wanted. We moved up here to get away from all yge noise we love our quiet hill. We love seeing the stars at night and with the red lights shining all night long that will no longer be available. I've talked with quite a few real-estate agents and did research online to find the average home value will drop 20% because of the towers also. The towers also affect our bees from studies I've found. The road is only a single lane road that everyone pitches in to keep it nice. We just put a new black top road in that cost the community $125000.00. The fire department has a difficult time comming up with there fire engines. Plus the traffic from all the contractors that have to work and build the tower plus maintain it. This is a little community that enjoys its peace and quiet. If a tower is allowed to be erected up there it is going to disrupt everything we have all made and enjoy here. Please don't let them build another tower there. We have 6 other towers in mossyrock. We don't need another one.

Sincerely,
The Coronas
Keith, Heather and Baylee

Sent from my Verizon, Samsung Galaxy smartphone

Get Outlook for Android

From: Keith Corona
To: Preston Pinkston
Subject: Permit#s wcf25-0002, sep25-0021
Date: Thursday, September 4, 2025 11:54:51 AM

Good morning Preston,
We are reaching out to let you know that the coronas are not wanting a 150ft tower with the possibility of 3 other towers built at the corner of our property. Our property borders the area where they want to build a tower and facility. The land that but up against the landing for the tower is where we put our animals. Goats, Cows and pigs. All that we raise to eat. I also don't think there will be enough area to set the tower and the facilities with out encroaching onto my property or making it unstable. I will include a picture from my front door. The tallest trees you will see is my corner. Right behind them is where the towers will be. They are going to be atleast 50ft above those trees. That is going to be an eyesore and also the noise it puts off is not wanted. We moved up here to get away from all yge noise we love our quiet hill. We love seeing the stars at night and with the red lights shining all night long that will no longer be available. I've talked with quite a few real-estate agents and did research online to find the average home value will drop 20% because of the towers also. The towers also affect our bees from studies I've found. The road is only a single lane road that everyone pitches in to keep it nice. We just put a new black top road in that cost the community $125000.00. The fire department has a difficult time comming up with there fire engines. Plus the traffic from all the contractors that have to work and build the tower plus maintain it. This is a little community that enjoys its peace and quiet. If a tower is allowed to be erected up there it is going to disrupt everything we have all made and enjoy here. Please don't let them build another tower there. We have 6 other towers in mossyrock. We don't need another one.

Sincerely,
The Coronas
Keith, Heather and Baylee

Sent from my Verizon, Samsung Galaxy smartphone
Get Outlook for Android

From:	Marietta Currie
To:	Preston Pinkston
Cc:	Justin Laabs Work
Subject:	Comments on WCF25-0002 / SEP25-0023 – Proposed 150-ft monopole at 262 Skyview Dr, Mossyrock
Date:	Thursday, September 4, 2025 10:21:03 PM
Attachments:	252 proximity to 262 cell tower Skyview Dr.png

Dear Preston Pinkston and the Lewis County Development Department,

We strongly oppose the proposed 150-foot wireless monopole at 262 Skyview Drive.

We are writing to formally express our strong opposition to the proposed installation of a cell tower in close proximity to our home. While we were not able to get a validated proximity in time for this submission, according to Google Earth, our home is 367.83 feet (map length) from our home and 378.74 feet (ground length) from our home. We would be living directly underneath this cell tower. We believe this particular location is inappropriate and poses several risks and concerns for our community. We are concerned not only for ourselves, but for our neighbors and community.

1. Health Concerns

Numerous peer-reviewed studies have raised concerns about the potential health effects of prolonged exposure to radiofrequency (RF) radiation emitted by cell towers. While the science is still evolving, there is evidence suggesting increased risks of cancer, neurological issues, and developmental delays in children living near such towers. Given the uncertainty and potential severity of these risks, it is prudent to adopt the precautionary principle and avoid placing such infrastructure near residential areas.

- **American Cancer Society** https://www.cancer.org/cancer/risk-prevention/radiation-exposure/cellular-phone-towers.html notes that while RF radiation from cell towers is considered low-level and non-ionizing, it has not been proven to be completely safe. The International Agency for Research on Cancer (IARC) classifies RF radiation as “possibly carcinogenic to humans,” and more long-term research is needed to assess risks like cancer and neurological effects
- **Oncquest Labs** **Harmful Effects of Mobile Towers in Residential Areas** and other studies have raised concerns about prolonged exposure to RF radiation potentially leading to neurological issues, reproductive problems, and other health effects, especially in children and vulnerable populations
- Cell tower radiation linked to higher reports of health issues, study finds - EHN
- The evidence is clear: Living close to a mobile phone mast has consequences – Radiation Research
- New Research On Cell Towers And Their Health Risks

2. Aesthetic and Environmental Impact

A cell tower would significantly disrupt the visual harmony of our neighborhood, especially in areas with natural beauty or historical significance. These towers are often considered eyesores and can diminish the character and appeal of a community. Additionally, they may negatively impact local ecosystems, including birds and pollinators, which are sensitive to electromagnetic fields. Environmental and Ecological Impacts of Radiofrequency Radiation (RFR)

3. Property Value Decline

Studies and surveys have shown that the presence of a cell tower can lead to a measurable decline in property values. Many prospective buyers are deterred by the sight of a tower or concerns about health risks, making it harder for homeowners to sell their properties at fair market value. Cell Phone Towers

4. Fire and Safety Risks

Cell towers can pose fire hazards due to electrical equipment malfunctions, especially in areas prone to wildfires or with limited emergency access. This adds another layer of risk for residents living nearby.

fires_telecom & fed wireless bills.qxp

Fire Safety for Communication Towers – Day Wireless Blog

5. Community Voice and Zoning Compliance

We are concerned that this proposal may not align with existing zoning regulations or community land use plans. In similar cases across the country, municipalities have successfully rejected cell tower proposals based on aesthetic, environmental, and zoning grounds. We urge the county to ensure full transparency and public involvement in this decision-making process.

6. Technological Alternatives

With rapid advancements in telecommunications, there are now less intrusive alternatives. Other options should be explored before resorting to infrastructure that could negatively impact our community.

7. LCC 15.50 noncompliance/variance

The application fails to demonstrate compliance with setback/fall-zone requirements (LCC 15.50.035: 200-ft minimum, reducible only with professional engineering). No credible fall-zone study has been provided. The requested variance does not meet County criteria: the hardship is self-created by the site choice, and the project adversely affects rural scenic character and prominent public viewpoints. Deny the variance.

8. Height/alternatives:

At 150 ft (the County's cap for new structures), visual impacts are severe. The applicant has not proved that collocation or a shorter/stealth facility cannot satisfy service objectives. Require a rigorous alternatives analysis with search-ring maps and landlord outreach logs; otherwise, deny for failure to meet LCC 15.50.035 design standards.

9. SEPA DNS is premature:

The DNS should be withdrawn or conditioned. The record lacks:

- Balloon test & photo simulations from Skyview Dr, Mayfield Lake viewpoints, and US-12;
- Noise specs and limited test hours for generator/HVAC;
- Critical areas/stormwater analysis;
- WDFW PHS review for raptors/riparian habitat;
- Section 106 status with DAHP/Tribal consultation (FCC undertaking).

Without this, probable significant adverse aesthetic and environmental impacts remain unmitigated.

Requested actions/conditions:

(a) Deny the variance;

(b) Require full alternatives/collocation analysis and reduced height/stealth design;

(c) Impose noise limits and restricted testing hours;

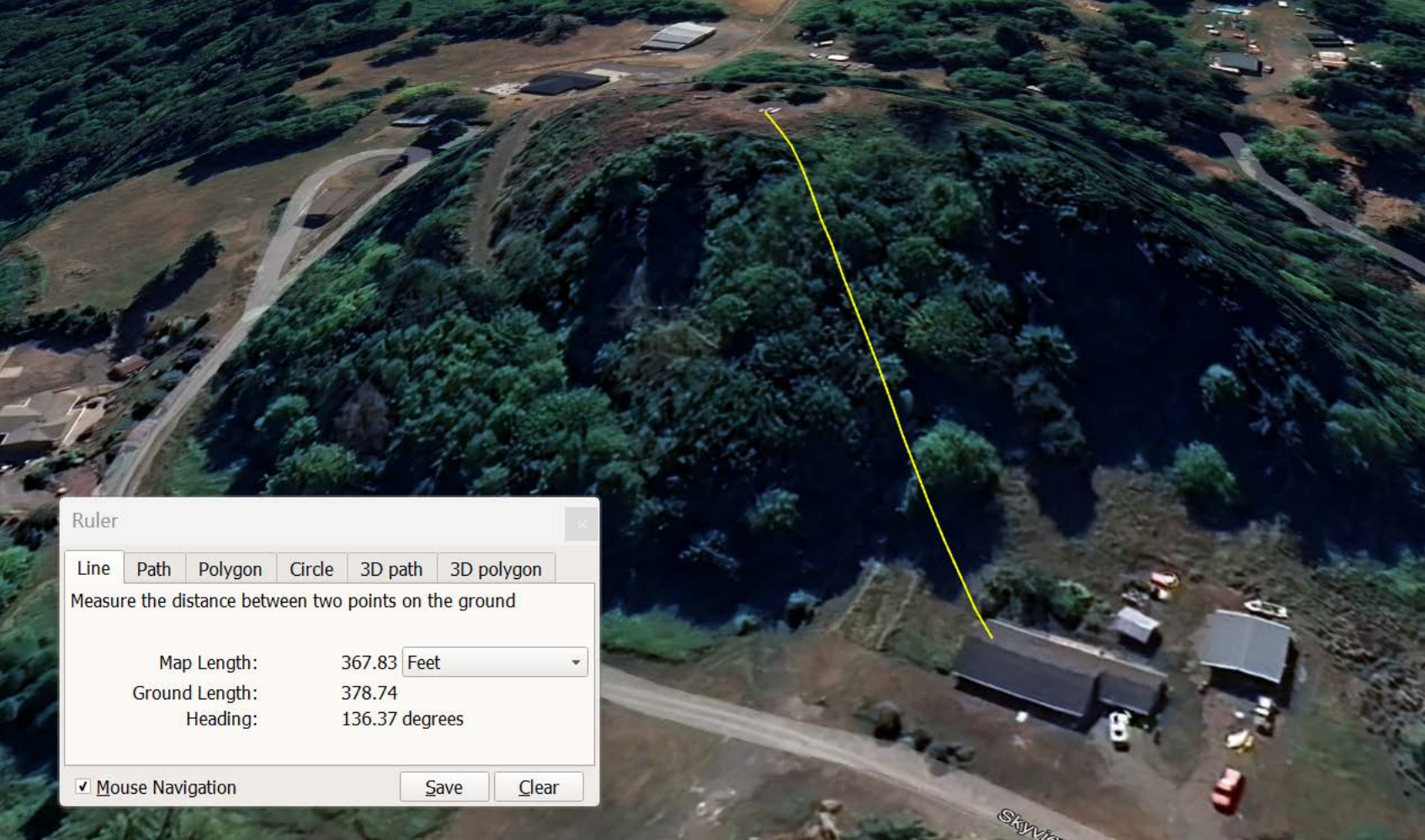
(d) Require vegetation screening and non-reflective finishes;

(e) Require engineering-backed fall-zone analysis for any setback reduction;

(f) Defer final approval until FCC Section 106 consultation is complete and any mitigation is incorporated.

Respectfully,

Marietta Currie
206-234-9731
Justin Laabs
206-390-4409


Ruler
Line
Path
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Circle
3D path
3D polygon
Measure the distance between two points on the ground
Map Length:
367.83
Feet
Ground Length:
378.74
Heading:
136.37 degrees
Mouse Navigation
Save
Clear

From: GARY LEEDS
To: Preston Pinkston
Subject: 150 foot wireless facility at 262 Skyview Drive, Mossyrock, WA 98564 Permit: WCF25-0002, SEP25-0021 SEPA checklist file number: SEP25-0023
Date: Thursday, September 4, 2025 2:34:58 PM

Skyview Drive and the surrounding neighborhood on this hill has no overhead power or telephone lines. It has an aesthetic nature in a bucolic setting. It is accessed by a one lane road partly paved and partly graveled. The residents were attracted to this neighborhood because of the natural beauty complete with an abundance of wildlife such as deer, many species of birds, bees and small predators. This cell tower will absolutely ruin the attractive nature it holds. With the exception of the one landowner (who will profit from the arrangement), NO ONE wants this, not one. This tower will be a scar in the area, visible by most, and should not be erected in this beautiful residential neighborhood.

The types of folks up here are mostly or nearly retired. Some have poured their life savings into this, and it is their dream home. But there are also some young, still working residents with children that will be right under this monstrosity. They are the most vulnerable.

There are a multitude of recent and current studies that demonstrate the negative impact of cell towers in residential areas on the value and marketability of real estate by up to twenty percent. Current articles such as those in The Journal of Real Estate Finance, The National Business Post and Environmental Health Trust reflect more current conditions in the marketplace. Older studies should be disregarded as they do not reflect the increasing public awareness and perception of cell towers in residential neighborhoods. It would be problematic and disastrous for a working couple to have to sell and move because of a job change if the value and marketability of their home is negatively impacted by a problem that could be avoided.

There are many examples where these very tall and unnatural looking towers have been placed correctly on large tracts of land such as a farm. The owner, in this situation, and the businesses involved both come out winners. I would encourage the Lewis County Community Commision to choose this type of option. This project does NOT fall into this category. Homeowners will lose big time.

The Lewis County Community Development Division is charged with determining appropriate locations for urban and rural uses while PROTECTING RURAL CHARACTER AND NATURAL RESOURCES. They would be derelict in their duty by choosing this project!

Also, Skyview Drive is a very narrow, one lane private road maintained by the homeowners. They have a significant investment in the building and maintenance of This road. There are

many sharp turns and steep hills on this road. It is not conducive to heavy and lengthy equipment that will be needed for this building project. Damage has been caused by other much smaller vehicles than will be needed for this project. The road is only ten feet wide and has many long stretches that have a sharp drop off along the edge. Heavy equipment WILL damage the base layer of the road whether immediately apparent or not. The type of vehicles and trailers used will have to run into the ditches along the road and or run off the pavement into the very vulnerable road edges. All the residents know this and stay away from the road edges. There is no room to pass when vehicles come in opposite directions towards each other. They have to back up or down to a small pass point when this situation arises.

A representative from your office needs to visit this site and see for yourselves how difficult this project will be, the negative impact it will have, and the damage it will cause.

From: Pamela Logalbo
To: Preston Pinkston
Subject: Opposition to Proposed Verizon Wireless Tower Mossyrock
Date: Thursday, September 4, 2025 9:36:57 PM

Subject: Opposition to Proposed Verizon Wireless Tower at 262 Skyview Drive, Mossyrock, WA

Dear Mr. Pinkston,

I hope this message finds you well. I am writing to formally express my opposition to the proposed Verizon wireless tower at 262 Skyview Drive in Mossyrock, WA.

While I understand the importance of improving telecommunications infrastructure, I have several concerns regarding the potential impacts of this tower on our community. The proposed location is in close proximity to residential areas, and I worry about the aesthetic and environmental effects it may have. Additionally, there are concerns related to property values, public health, and the possible disruption of the natural landscape.

I urge the Lewis County Planning Division to consider these factors carefully and explore alternative sites that may mitigate the impact on our community while still allowing for the necessary advancements in wireless service.

Thank you for your attention to this matter. I appreciate your consideration of the concerns raised by the community and look forward to your response.

Sincerely,

Joe and Pam Logalbo
106 Del Ray Rd, Mossyrock, WA 98564
pmllttts86@yahoo.com
928-486-1199

From: Brinn Marri
To: Preston Pinkston
Subject: SEP25-0021 / WCF25-0002 Verizon Wireless Tower
Date: Thursday, September 4, 2025 2:34:32 PM
Attachments: image001.png

Good afternoon!

Thank you for sharing the information regarding the Verizon Wireless 150-foot monopole tower. I currently have no comments, though that may change if new information becomes available. Thanks again!

Brinn Marri, M.A.
Tribal Historic Preservation Officer (THPO)
Confederated Tribes of the Chehalis Reservation
Oakville, WA
Office: (360) 709-1768
bmarri@chehalistribe.org

From: Adrian B.
To: Preston Pinkston
Subject: OBJECTION FOR THE RECORD Re: WCF25-0002 (Verizon Wireless 150-ft monopole)
Date: Friday, September 5, 2025 10:32:02 AM

OBJECTION FOR THE RECORD

Re: WCF25-0002 (Verizon Wireless 150-ft monopole), 262 Skyview Dr., Mossyrock, WA; SEPA File
SEP25-0021 (DNS noted pursuant to WAC 197-11-340(2))
Filed To: Lewis County Community Development, SEPA Responsible Official / Hearing
Concerned Resident and Interested Party
Date: 2 September 2025

I. Introduction and Standing

I submit this Objection for the Record regarding Verizon's proposed 150-foot wireless communications facility at or near 262 Skyview Drive, Mossyrock, WA (the "Project"). The County's Notice of Application identifies permit WCF25-0002 with SEPA file SEP25-0021 and cites a Determination of Nonsignificance ("DNS") under WAC 197-11-340(2) (see WAC 197-11-340). The site is formally listed as Parcel Number 028513011000, comprising approximately 6.85 acres and zoned RDD-5 (Rural Development District – one dwelling unit per five acres) (see LCC 17.42).

II. Requested Action

I respectfully request that Lewis County deny the application or, at minimum, remand it for full compliance with Lewis County Code (LCC) Chapter 15.50 (see LCC 15.50), the State Environmental Policy Act (SEPA, RCW 43.21C; RCW 43.21C) and Washington Growth Management Act (RCW 36.70A), including robust alternatives and co-location analysis, groundwater protections, and visual/compatibility mitigation.

III. Factual Background

The proposed 150-foot monopole and appurtenant equipment would be placed in a highly visible, residentially proximate area along Skyview Drive. The subject parcel (APN 028513011000, 6.85 acres, zoned RDD-5) is surrounded by rural residences and domestic wells. Oil-filled equipment (e.g., diesel generator/day tank, transformer) is commonly used at WCF sites, posing spill risks to groundwater if not stringently contained and monitored. Under SEPA, groundwater contamination

risks must be
disclosed (WAC 197-11-444(1)(b)(iv)).
IV. Legal & Policy Framework (Summary)
Relevant authorities include Lewis County Code Chapter 15.50 (WCF rules), SEPA (RCW 43.21C;
WAC 197-11), Washington Growth Management Act (critical areas, aquifers, best available science),
FCC NEPA/NHPA and TCA rules (FCC NEPA/NHPA), and FAA/USFWS wildlife and tower siting
guidelines (USFWS Tower Guidance).
V. Grounds for Objection
A. Inadequate alternatives and co-location analysis contrary to LCC 15.50. B. Visual/aesthetic
incompatibility with rural residential setting under RDD-5 zoning. C. Groundwater and wells at risk
without stringent protection—200% containment required (best management practice consistent with
SPCC, EPA SPCC Rule). D. Wildlife/avian risks if lighting not configured per FAA/USFWS. E. DNS
premature—SEPA requires at minimum an MDNS (WAC 197-11-350). F. RF health effects are not a
basis of objection per 47 U.S.C. § 332(c)(7)(B)(iv).
VI. Feasible Alternatives
Consistent with LCC's siting priorities and the least-intrusive-means principle, the County should
require evaluation of alternative sites, including parcels on the south side of Mossyrock with fewer
residences, and co-location opportunities on existing facilities. A comparative alternatives matrix should
be submitted.
VII. Conditions (If Approved Despite Objection)
If the County nonetheless proceeds, conditions should include: reduced height/stealth design; rigorous
alternatives and co-location analysis; 200% secondary containment with impermeable berms/liners;
SPCC-style spill prevention plan; avian-friendly lighting; generator noise/time limits; decommissioning
bond; construction BMPs; FAA/FCC compliance evidence.
VIII. Conclusion
The Skyview Drive location is unnecessarily intrusive given feasible alternatives and co-location
opportunities, and it presents avoidable risks to wells and community character. The record should
reflect a rigorous alternatives analysis and impose strong groundwater/visual mitigation. For these
reasons, I request denial or remand. If approved despite these objections, the conditions in Section VII
are necessary to meet LCC, SEPA, and GMA obligations.

Respectfully submitted,
Adrian Berg

Sent from my iPhone

From: M F
To: Preston Pinkston
Subject: Formal Comment of Opposition to Permits WCF25-0002 and SEP25-0021
Date: Friday, September 5, 2025 3:54:09 PM
Attachments: petition_signatures_jobs_490744722_20250905184647.csv

To:

Lewis County Community Development

Attn: Preston Pinkston, Planner

From: George and Monica Carp owners at 285 Skyview Dr, Mossirock, Wa,98564

Subject: Formal Comment of Opposition to Permits WCF25-0002 and SEP25-0021

Dear Lewis County Community Development,

We are writing to formally express our family strong opposition to the approval of Wireless Communication Facility Permit WCF25-0002 and associated State Environmental Policy Act (SEPA) review SEP25-0021. My residence is located less than 300 feet from the proposed tower site, and I am not alone in my concerns. Our surrounding community is united in opposition to this project, and I have attached a petition containing the signatures of concerned residents who share these serious objections.

1.

Safety Concerns

Our area is prone to high wind events, making the proposed 150-foot wireless communication tower a significant fire and structural hazard. In the event of a storm or equipment failure, the proximity of this tower to our home poses a real and immediate danger. The psychological impact of living under the shadow of such a structure is equally troubling.

2.

Negative Impact on Property Value

Our property, like many others in the area, has recently undergone substantial investment to convert it into a single-family residence. The introduction of a large industrial tower within such close proximity is expected to cause a devaluation of up to 20%, which is not speculative — it's based on observed impacts in similar cases. This potential loss will negatively affect homeowners who receive no benefit from this project.

3.

Loss of Rural Character

We chose to live in this area precisely because of its natural beauty and rural charm. The installation of a 150-foot tower would irreversibly disrupt the visual and environmental landscape of our neighborhood, altering its character in a way that cannot be undone.

4.

Unsuitable Access via Private Road

The only proposed access route to the site is via a privately maintained road that:

- Is narrow, unpaved in parts, and not engineered for heavy industrial vehicles
- Is funded and maintained solely by the local residents
- Was never intended to support large construction or commercial maintenance traffic

Allowing this road to be used for tower construction and ongoing service vehicles would result in significant wear, safety concerns, and financial burden — unfairly pushed onto the families who live along it.

5.

Disproportionate Benefit to One Property Owner and a Corporation

This permit appears to serve only one landowner and a telecommunications corporation, while placing all the risk and burden on the surrounding residents. It undermines the well-being of a cohesive community and benefits virtually no one living in the affected area.

6.

Community Opposition

This is not an isolated objection. The local community is strongly opposed to this project, and I have included a petition signed by numerous concerned neighbors as evidence of widespread disapproval. This is a clear indication that the project is not compatible with the values, safety, or interests of the community it would directly impact.

Given the serious and far-reaching consequences outlined above, I respectfully urge Lewis County Community Development to deny permits WCF25-0002 and SEP25-0021, or at a minimum, require significant reconsideration of the tower's proposed location, access plan, and community impact.

Thank you for your time, and for considering the voice of the residents who call this area home. We remain available for further discussion or participation in any public process related to this proposal.

Sincerely,

Monica And George Carp

503-481-8161

Attachment: Signed Community Petition Opposing Permits WCF25-0002 and SEP25-0021

Name	City	State	Postal Code	Country	Signed On
Monica Carp	Portland	OR	97225	United States	08/30/2025
Karen Henning	Mossyrock	WA	98564	United States	09/01/2025
Mitchell Henning	Port Orchard	WA	98367	United States	09/01/2025
Manuela Mann	Wilsonville	OR	97070	United States	09/01/2025
Rebecca Watts	Mossyrock	WA	98564	United States	09/01/2025
Vanessa Kupietz	Lewis County	WA	98160	United States	09/01/2025
Brandy Perkins	Seattle	WA	98168	United States	09/01/2025
Richard Ray	Glenoma	WA	98336	United States	09/01/2025
Heather Corona	Seattle	WA	98160	United States	09/02/2025
Carol Jensen	Randle	WA	98377	United States	09/02/2025
Marietta Currie	Mossyrock	WA	98564	United States	09/02/2025
Darin Puntillo	Portland	OR	97209	United States	09/02/2025
Diana Sowards	Seattle	WA	98160	United States	09/02/2025
Francesca Currie	Edmonds	WA	98020	United States	09/02/2025
Chavilla Monk	Silver Creek	WA	98585	United States	09/02/2025
Mariah Harvey	Randle	WA	98377	United States	09/02/2025
Angela Judkins	Oxnard	CA	93035	United States	09/02/2025
Ashlee Mitchell	Chehalis	WA	98532	United States	09/02/2025
Kori Dewaele	Onalaska	WA	98570	United States	09/02/2025
Cheryl Goff	Randle	WA	98377	United States	09/02/2025
Adrianna Powell	Randle	WA	98356	United States	09/02/2025
Hector Corona	Corpus Christi	TX	78414	United States	09/02/2025
Sheryl Sanek	Graham	WA	98338	United States	09/02/2025
Jen Whitten	Bellevue	WA	98007	United States	09/02/2025
Lakia Bilodeau	Randle	WA	98377	United States	09/02/2025
Ashley Ward	Seattle	WA	98198	United States	09/02/2025
Brandy Betz	Randle	WA	98377	United States	09/02/2025
Brandi Case	Graham	WA	98338	United States	09/02/2025
George Carp	Portland	OR	97225	United States	09/02/2025
Kayla Gallien	Mossyrock	WA	98564	United States	09/02/2025
Callie Yates	Seattle	WA	98160	United States	09/02/2025
Teresa Ekdahl-Johnson	Mossyrock	WA	98564	United States	09/02/2025
Brian Jensen	Randle	WA	98377	United States	09/02/2025
Olga Sprague	Mossyrock	WA	98564	United States	09/02/2025
Zoey Hicks	Glenoma	WA	98336	United States	09/02/2025
Joe Bard	Randle	WA	98377	United States	09/02/2025
Amber Kinsman	Onalaska	WA	98570	United States	09/02/2025
Samantha Miller	Renton	WA	98055	United States	09/02/2025
Maile Lakely	Onalaska	WA	98570	United States	09/02/2025
Jordan Guffey	Medford	OR	97501	United States	09/02/2025
Kristine B	Onalaska	WA	98570	United States	09/02/2025
Michelle Green	Onalaska	WA	98570	United States	09/02/2025
Elizabeth Jerome	Glenoma	WA	98336	United States	09/02/2025

Jane Higginson	Indianapolis	IN	46240	United States	09/02/2025
Lindsey Beveridge	Centrailia	WA	98531	United States	09/02/2025
Victoria spears	Onalaska	WA	98570	United States	09/02/2025
Heidi Howard	Onalaska	WA	98570	United States	09/02/2025
Barbara Hensley	Randle	WA	98377	United States	09/02/2025
Adrian Berg	Mossyrock	WA	98564	United States	09/02/2025
Brittany Morton	Yelm	WA	98597	United States	09/02/2025
helmut floss	Mossyrock	WA	98564	United States	09/02/2025
Michelle Attaway	Doty	WA	98532	United States	09/02/2025
David Binns	Goldendale	WA	98620	United States	09/02/2025
Sammy Fishbeck	Mossyrock	WA	98564	United States	09/02/2025
Justin Laabs	Mossyrock	WA	98564	United States	09/02/2025
Brandon Brown	Edmonds	WA	98020	United States	09/02/2025
Matt Snyder	Wyoming	MI	49509	United States	09/02/2025
Donna Perkins	Gig Harbor	WA	98335	United States	09/02/2025
Monika Jazewicz	Mossyrock	WA	98564	United States	09/02/2025
Bonnie Cross	Chehalis	WA	98532	United States	09/02/2025
Dennis Schlenker	Onalaska	WA	98570	United States	09/02/2025
Jessica Pakar	Randle	WA	98377	United States	09/02/2025
Ashley Vaughan	Onalaska	WA	98564	United States	09/02/2025
Darlene Banks	Mossyrock	WA	98564	United States	09/02/2025
Lauren Hail	Seattle	WA	98160	United States	09/02/2025
Rose Etl	Mossyrock	WA	98564	United States	09/02/2025
Nicole Wood	Mossyrock	WA	98564	United States	09/02/2025
Ida Klein	Seattle	WA	98118	United States	09/02/2025
Lacey Ross	Silver Creek	WA	97504	United States	09/02/2025
Travis Miller	Seattle	WA	98118	United States	09/02/2025
Marcella Kretzler	Seattle	WA	98160	United States	09/02/2025
Shelley De Oliveira	Seattle	WA	98160	United States	09/02/2025
Sarah Durbin	Centralia	WA	98531	United States	09/02/2025
Elizabeth Hart	Seattle	WA	98160	United States	09/02/2025
Margarita Jara	Mossyrock	WA	98564	United States	09/02/2025
Kaylee Stiltner	Silver Creek	WA	98585	United States	09/02/2025
Rebecca Brown	Chehalis	WA	98532	United States	09/02/2025
Judith Gansberg	Silver Creek	WA	98585	United States	09/02/2025
Jeremiah Broderick	Mossyrock	WA	98564	United States	09/02/2025
RHONDA BRIDGES	Morton	WA	98356	United States	09/02/2025
Deanna Yost	Mossyrock	WA	98564	United States	09/02/2025
Amy Morehouse	Mossyrock	WA	98564	United States	09/02/2025
Tami Shand	Mossyrock	WA	98564	United States	09/02/2025
Crystal Bright	Glenoma	WA	98336	United States	09/02/2025
Lacy Spears	Onalaska	WA	98570	United States	09/02/2025
Cameron Fitzhugh	Salkum	WA	98582	United States	09/02/2025
Stacy Chambers	Mossyrock	WA	98564	United States	09/02/2025

Rebecca Vargas	Onalaska	WA	98570	United States	09/03/2025
Joshua Stottlemyer	Tenino	WA	98589	United States	09/03/2025
Elizabeth Schmitt	Cinebae	WA	98533	United States	09/03/2025
Laura Wyman	Mossyrock	WA	98564	United States	09/03/2025
Marietta Snyder	Edmonds	WA	98026	United States	09/03/2025
Caitlin Schwartz	Olympia	WA	98512	United States	09/03/2025
Amanda coria	Mossyrock	WA	98564	United States	09/03/2025
Nancy Prime	Onalaska	WA	98570	United States	09/03/2025
Kelsey Hermann	Onalaska	WA	98570	United States	09/03/2025
Jessica Stirling	Glenoma	WA	98336	United States	09/03/2025
Teri Olsen	Oregon City	OR	97045	United States	09/03/2025
Kim Chambers	Salkum	WA	98582	United States	09/03/2025
christina Alexander	Seattle	WA	98144	United States	09/03/2025
Teresa Hamilton	Morton	WA	98356	United States	09/03/2025
Kohen Westhoff				United States	09/03/2025
Brody Nakonsky	Cathlamet	WA	98612	United States	09/03/2025
John Roberts	Bellingham	WA	98229	United States	09/03/2025
Nakota Fischer	Mossyrock	WA	98564	United States	09/03/2025
Pebbles Kaydus	Morton	WA	98356	United States	09/03/2025
Terri Aust	Onalaska	WA	98570	United States	09/03/2025
Kayla Johnson	Tacoma	WA	98445	United States	09/03/2025
Christian Ford	Morton	WA	98356	United States	09/03/2025
Jasmine Henderson	Morton	WA	98356	United States	09/03/2025
Jacinta Smith	Chehalis	WA	98532	United States	09/04/2025
Heidi Perry	Glenoma	WA	98336	United States	09/04/2025
Gena Neitzel	Mossyrock	WA	98585	United States	09/04/2025
Valerie Pacheco	Mossyrock	WA	98564	United States	09/04/2025
Nathaniel Perry	Glenoma	WA	98336	United States	09/04/2025
Lisa Lizotte	Salkum	WA	98582	United States	09/04/2025
Anita Bassett	Northglenn	CO	80233	United States	09/04/2025
M'Lisse Peake	Mossyrock	WA	98564	United States	09/04/2025
Yesenia Hernandez	Mossyrock	WA	98564	United States	09/04/2025
KATHRYN ALLEN	Winlock	WA	98596	United States	09/04/2025
Kristy Wallen	Winlock	WA	98596	United States	09/04/2025
Christy Meade	Grandview	WA	98930	United States	09/04/2025
Molly Inocencio	Morton	WA	98356	United States	09/04/2025
Jeramy Kaydus	Morton	WA	98356	United States	09/04/2025
William Price	Auburn	WA	98092	United States	09/04/2025
Trisha Berg	Mossyrock	WA	98564	United States	09/04/2025
David Twietmeyer	Bothell	WA	98041	United States	09/04/2025
Kaisha Guffey	Federal Way	WA	98003	United States	09/04/2025
Gurpreet Minhas	Tacoma	WA	98406	United States	09/04/2025
Garrett Wallen	Winlock	WA	98596	United States	09/05/2025
Alan Watts	Mossyrock	WA	98564	United States	09/05/2025

Teri Wright	Silver Creek	WA	98585	United States	09/05/2025
Douglas Wright	Silver Creek	WA	98585	United States	09/05/2025

From: Clay G
To: Preston Pinkston
Subject: 262 Skyview Dr Cell Tower
Date: Friday, September 5, 2025 4:21:39 PM

Hello,
My name is Clayton Gootgeld and I live at 296 Skyview Dr. I would like to express my opposition to installment of a cell tower next to my property primarily because of it lowering my property value. I'm also concerned about road work since we live on a private driveway and have already spent a lot to maintain it.

Sincerely,
Clayton Gootgeld
(360) 983-3777

From: GARY LEEDS
To: Preston Pinkston
Subject: permit WCF25-0002, SEP25-0021 150 foot wireless cell tower on 262 Skyview Drive, Mossyrock, WA 98564
Date: Friday, September 5, 2025 4:06:52 PM

This cell tower should not be placed in this pristine neighborhood. These fine folks moved up here and spent lots of money to build their homes in a country setting. They pay lots of money in taxes to support the area's development and should not have to compensate their investment by having a project that will decrease the value of their homes plus have them be less marketable. There must be other options for the county to place these towers. The aesthetics and natural beauty must be a part of the development.

Another factor involved with this site is the one lane road. It is narrow (ten feet) and made for residential traffic, not large equipment and large cranes needed for the project. There are inherent weaknesses in this road such as very narrow and vulnerable shoulders, culverts under the road for a stream to pass under the road in two places, steep drop offs very close to the road edge, limited small places for traffic to pass around each other, steep inclines and very sharp curves not conducive to large and heavy roads. The potential for damage to this road is very great and may not be immediately apparent. The homeowners have borne the costs of building, repairing, and maintaining this road over many years.

This is just NOT a good choice for this project. Surly the county can make a better decision, considering the potential loss to all the folks on this hill. Even the high voltage power lines are not as tall as this would be, nor are homes immediately under them.

Please reconsider this project.

Respectfully,

Hannah Leeds

From: Eva Lindgren
To: Preston Pinkston
Subject: Proposed Verizon Tower Permit NumberWCF25-0002, SEP25-0021
Date: Friday, September 5, 2025 11:54:54 AM

Dear Mr. Preston,

We are writing to express our concern and outrage at the proposed Verizon 150-foot wireless communications facility at 262 Skyview Drive, Mossyrrock, WA. There are a number of reasons why we oppose the proposed location of this tower. However, the biggest issue is just how unneighborly this proposal is. This would result in one neighbor benefitting financially from ruining the environment for his immediate neighbors and in the process reducing their property values significantly. Who would ever want to purchase a home located close to such a tower? We sure as heck wouldn't. Would you?

Sincerely,

Eva K. Lindgren, CPA, CGMA
Alvan R. Williams, Jr.
158 Del Ray Rd
Mossyrock, WA 98564

(360) 623-0370

From: Tyler Loving
To: Preston Pinkston
Subject: New Cell tower-Mossyrock WA
Date: Friday, September 5, 2025 2:33:30 PM

I am glad to hear there is a new tower for cell coverage coming into this area.
We have very spotty coverage and this will improve safety + prosperity in the region.

Thank you!

From: Cornell Mann
To: Preston Pinkston
Subject: WCF256-0002, SEP25-0021 @ 262 Skyview Dr. Mossyrock
Date: Friday, September 5, 2025 4:05:53 PM

Dear Mr. Pinkston,

My name is Cornell Mann, and I am writing on behalf of the Mann family. We live at 293 Skyview Drive, Mossyrock. Our property corner is adjacent to 262 Skyview Drive, the proposed site for the wireless tower.

We appreciate technology and understand the need for such infrastructure. However, we strongly oppose the construction of a tower at this location for the following reasons:

1. **Road Safety**
   Skyview Drive is only 12–14 feet wide, including shoulders, with a paved section that narrows to about 10 feet in most places and no turnouts. The road is already unsafe—at times we must back up 50 feet or more to allow oncoming traffic to pass. It was costly to pave and is difficult to maintain. Construction vehicles will accelerate its deterioration. In addition, the downhill shoulder is a known slide zone; if damaged, repairs would be extremely expensive. A slide would also cut off the only access to our entire subdivision.
   I encourage the County to personally inspect the site to better understand the potential negative impact on our small community.

There are more suitable alternatives. The hills south of Highway 12 are less populated, largely because well water is harder to obtain. That area would be far better suited for a tower of this type.

2. **Property Value**
   I have worked in real estate for 35 years and know firsthand that power lines and wireless towers have a negative effect on nearby property values. We have invested significantly in our Mossyrock retirement home. A 10–20% loss in value would be a major hardship for our family.

3. **Community Concerns**
   In addition to the above, we support and share the concerns already expressed by our neighbors regarding this project.

Thank you for your time and for considering the serious impact this tower would have on our community.

Sincerely,
Cornell Mann
293 Skyview Drive
Mossyrock, WA

--

Cornell Mann, CCIM
Principal Broker, President
Great Western Real Estate Co
503-939-7146 Direct
503-255-7775 Office
503-255-7772 Fax
www.GreatWesternRealEstate.com
www.SeniorFacilityBrokers.com

From:	Teri Olsen
To:	Preston Pinkston
Cc:	Mindy Brooks; decision.makers@change.org; treasurer@cityofmossyrock.com; mikeh@lcpud.org; michaelk@lcpud.org
Subject:	Public comment re: Harmoni Towers (Verizon)
Date:	Friday, September 5, 2025 1:11:18 PM
Attachments:	Email to Commissioners.pdf

Hello Preston,
Attached is my letter for a public comment in opposition to the proposed installation of a cell tower at 262 Skyview Dr., Lewis County, WA.
Proponent: Harmoni Towers (Verizon), Bill North (North Group).
File Number: SEP25-0021.

Please forward this letter to all responsible parties.

Thank you,
Steve Olsen
255 Skyview Dr., Mossyrock
Hockeybum377@yahoo.com

Subject: Opposition to Proposed Cell Tower at 262 Skyview Dr., Lewis County, WA - Section 12, Township 12 N, Range 02 E, WM on parcel number 028513011000.

Dear Mike Hadaller, Randall Sasser, Michael Kelly:

I am writing to express my strong opposition to the proposed cell tower in our community at 262 Skyview Dr. As a concerned resident, I believe that this installation poses serious risks to our neighborhood's safety, aesthetic character, and property values. The tower's proximity to homes, schools, and parks is particularly concerning.

Key reasons for my opposition include:

1. **Aesthetic and Visual Impact**: The proposed tower will disrupt the visual harmony of our neighborhood, transforming it from a peaceful residential area into one dominated by an industrial structure. This will detract from the natural beauty and character we value so much.
   The proposed tower will be directly SE of our property. We have an approved site plan with Lewis County. The location of this tower would be in direct line of sight of our approved house location. See pictures attached.
2. **Impact on Property Values**: Studies have shown that cell towers can reduce property values by up to 20%–35%. This installation would harm homeowners' investments and make it harder for people to sell their homes. This would make Lewis County/Mossyrock a less desirable location for residents and tourists.
3. **Impact on existing private road:** Skyview Dr. is a private road which each resident has contributed to its maintenance. In the past year, the residences paid $6,000 each (over $127,000) to repave the road. The upper portion is still gravel with sharp turns and uphill climbs. The traffic from this project would have significant adverse impact on this road.
4. **Proximity to Homes and Schools**: The tower's location near homes, schools, and parks is unacceptable. Although health impacts are not officially considered in your decision, many residents are concerned about the long-term effects of radiation exposure on vulnerable populations, particularly children.
5. **Alternative Locations**: I urge the Commission to explore less disruptive, alternative locations for this tower. There are more appropriate sites in commercial or industrial zones that would have far less impact on our community. There are alternate hills in the area which are away from residences.

We purchased our property in 2022 with the intent of building a retirement home. We were drawn to this location because it was a neighborhood with strong community ties. As we have developed our property, we have always considered the visual impact on the neighborhood. We have removed many large, dead trees and fields of blackberries. We have opened scenic views while maintaining the natural vegetation. The installation of this cell tower would have the opposite effect of what we are working to maintain.

I kindly request that you take these concerns into serious consideration and deny the application for this cell tower. Our community deserves to have its voice heard, and I believe there are better solutions to improve cellular coverage without sacrificing the character and safety of our neighborhood.

Thank you for your time and consideration. I look forward to hearing from you and hope you will support the wishes of the community.

Sincerely,
Steve Olsen
255 Skyview Dr., Mossyrock, WA 98564
503-781-0918
hockeybum377@yahoo.com

Current view to the east.

Current view to SE. Tower will be 50ft above the trees in center of this picture. This will be the view from our proposed house.

This is the view from the base of access road to the tower. Our home will be located in the field above the trailer.

This is Skyview Dr. at SW corner of our property. A sharp, uphill turn on loose gravel.

From:	Teri Olsen
To:	Preston Pinkston
Cc:	Mindy Brooks; decision.makers@change.org; treasurer@cityofmossyrock.com; mikeh@lcpud.org; michaelk@lcpud.org
Subject:	Public comment re: Harmoni Towers (Verizon), #SEP25-0021
Date:	Friday, September 5, 2025 1:28:22 PM
Attachments:	Email to Commissioners-Teri.pdf

Hello Preston,

Attached is my letter for a public comment in opposition to the proposed installation of a cell tower at 262 Skyview Dr., Lewis County, WA.

Proponent: Harmoni Towers (Verizon), Bill North (North Group).

File Number: SEP25-0021.

Thank you,

Teri Olsen
255 Skyview Dr., Mossyrock
Terio@clackamas.edu

Subject: Opposition to Proposed Cell Tower at 262 Skyview Dr., Lewis County, WA - Section 12, Township 12 N, Range 02 E, WM on parcel number 028513011000.

Dear Preston Pinkston, Mke Hadaller, Randall Sasser, Michael Kelly, and Mindy Brooks:

I am writing to express my strong opposition to the proposed cell tower at 262 Skyview Dr., in our community. As a concerned resident, I believe that this installation poses serious risks to our neighborhood's safety, aesthetic character, and property values. The tower's proximity to homes, schools, and parks is particularly concerning.

Key reasons for my opposition include:

1. **Aesthetic and Visual Impact**: The proposed tower will disrupt the visual harmony of our neighborhood, transforming it from a peaceful residential area into one dominated by an industrial structure. This will detract from the natural beauty and character we value so much.
   The proposed tower will be directly SE of our property. We have an approved site plan with Lewis County. The location of this tower would dominate the view from our pre-approved house location. See pictures attached.
2. **Impact on Property Values**: Studies have shown that cell towers can reduce property values by up to 20%–35%. This installation would harm homeowners' investments and make it harder for people to sell their homes. This would make Lewis County/Mossyrock a less desirable location for residents and tourists.
3. **Impact on existing private road:** Skyview Dr. is a private road which each resident has contributed to its maintenance. In the past year, the residences paid $6,000 each (over $127,000) to repave the road, maintenance and upkeep. The upper portion is still gravel with sharp turns and uphill climbs. The traffic from this project would have significant adverse impact and likely damage this road.
4. **Proximity to Homes and Schools**: The tower's location near homes, schools, and parks is unacceptable. Many residents are concerned about the long-term effects of radiation exposure on vulnerable populations, particularly children and native species.
5. **Alternative Locations**: I urge the Commission to explore less disruptive, alternative locations for this tower. There are more appropriate sites in commercial or industrial zones that would have far less impact on our community. There are alternate hills in the area which are away from residences.

We purchased our property in 2022 with the intent of building a retirement home. We were drawn to this location because it was a neighborhood with strong community ties. As we have developed our property, we have always considered the visual impact on the neighborhood. The Skyview neighborhood has a view of, and is visible to, Lake Mayfield, the Cowlitz River, and the valley to Riffe Lake, all desireable locations in Lewis County.

I kindly request that you take these concerns into serious consideration and deny the application for this cell tower. Our community deserves to have its voice heard, and I believe there are better solutions to improve cellular coverage without sacrificing the character and safety of our neighborhood.

Thank you for your time and consideration. I look forward to hearing from you and hope you will support the wishes of the community.

Sincerely,
Teri (Theresa) Olsen
255 Skyview Dr., Mossyrock, WA 98564
503-927-4401
terio@clackamas.edu

Tower is proposed to be on this knoll, directly above this house and view.

From: Max Phillips
To: Preston Pinkston
Subject: Re: Mossyrock Sky view Tower
Date: Friday, September 5, 2025 3:48:56 PM

> You don't often get email from hall_smp@hotmail.com. Learn why this is important

Thank you for the clarification and response. The expected tower height is still extremely concerning and will impact our views and our property sight line and therefore value. In addition to my safety concerns regarding fire danger, high winds, and the use of our private road. Please note my concern going forward.

I hope you have a good weekend.

Regards,

Samantha Pitman

From: Preston Pinkston <Preston.Pinkston@lewiscountywa.gov>
Sent: Friday, September 5, 2025 3:10:32 PM
To: Max Phillips <hall_smp@hotmail.com>
Subject: RE: Mossyrock Sky view Tower

Hi Samantha,

Confirming receipt of your comments. As a party of record you will be notified of any future developments on the project, including public notices. To clarify, this proposal is not for a rezone or variance, wireless communication facilities are permitted in all county zones. The header on the Notice of Application is the same one use for Type III Variances or Wireless Communication Facilities. Sorry for the confusion that may have caused. If you have any additional comments you can send them to me by 4pm today.

Preston Pinkston

Planner
Lewis County Community Development
125 NW Chehalis Ave
Chehalis, WA 98532
360-740-1389

From: Max Phillips <hall_smp@hotmail.com>
Sent: Friday, September 5, 2025 1:57 PM
To: Preston Pinkston <Preston.Pinkston@lewiscountywa.gov>
Subject: Mossyrock Sky view Tower

Good day. My name is Samantha Pitman, and I live at 193 Skyview Drive in Mossyrock. My family and I are deeply concerned about the posting notifying us of a possible cell wireless tower above our house at 262 Skyview Dr, Mossyrock WA 98564. I have numerous questions concerning the legality of rezoning (approving a variance) for this land and the use of our private road, which we just paid for through private funds by the residence. My family and I are against this action, at this time, for those reasons, or until additional information can be provided regarding the requested structure, buildings, impact on our water and roads.

Please call me back at 360-913-4018 or respond to this email regarding the next step in the process and how to provide proper notification of dissent to stop this process from moving forward at this time.

I am a disabled, combat veteran with years of experience working near high-powered equipment and moved to the county to enjoy the serenity our lake and natural environment provides. The area is zoned for residence and wildlife and therefore I have safety concerns regarding wind, and fire as well. I look forward to a conversation.

Best Regards,

Adam, Sam, Addison Pitman, and Cherl and Dan Hall residence of 193 Skyview Drive

From: Max Phillips
To: Preston Pinkston
Subject: Mossyrock Sky view Tower
Date: Friday, September 5, 2025 1:57:19 PM

Good day. My name is Samantha Pitman, and I live at 193 Skyview Drive in Mossyrock. My family and I are deeply concerned about the posting notifying us of a possible cell wireless tower above our house at 262 Skyview Dr, Mossyrock WA 98564. I have numerous questions concerning the legality of rezoning (approving a variance) for this land and the use of our private road, which we just paid for through private funds by the residence. My family and I are against this action, at this time, for those reasons, or until additional information can be provided regarding the requested structure, buildings, impact on our water and roads.

Please call me back at 360-913-4018 or respond to this email regarding the next step in the process and how to provide proper notification of dissent to stop this process from moving forward at this time.

I am a disabled, combat veteran with years of experience working near high-powered equipment and moved to the county to enjoy the serenity our lake and natural environment provides. The area is zoned for residence and wildlife and therefore I have safety concerns regarding wind, and fire as well. I look forward to a conversation.

Best Regards,

Adam, Sam, Addison Pitman, and Cherl and Dan Hall residence of 193 Skyview Drive

From: Vanessa Shinmoto
To: Preston Pinkston
Subject: Fwd:
Date: Friday, September 5, 2025 4:03:18 PM
Attachments: Public Comments LCST.pdf

Warm Regards,

Vanessa Shinmoto
Program Coordinator
vanessa.shinmoto@childrenshealthdefense.org
312-316-7392 (Mobile)

Follow Stop5G.org on social media:

---------- Forwarded message ---------
From: **Risa Evans** <risa.evans@childrenshealthdefense.org>
Date: Fri, Sep 5, 2025 at 6:01 PM
Subject:
To: Vanessa Shinmoto <vanessa.shinmoto@childrenshealthdefense.org>

--

Risa Evans, Esq.
Staff Attorney
Children's Health Defense
risa.evans@childrenshealthdefense.org

This email is for informational purposes only and does not constitute legal advice or create an attorney-client relationship.

McCOLLOUGH LAW FIRM PC

INTERNET | COMMUNICATIONS | UTILITIES | REGULATION

2290 Gatlin Creek Rd. Dripping Springs, Texas 78620
Website: www.dotLAW.biz | Email: wsmc@dotLAW.biz | Telephone: (512) 888-1112 | Facsimile: (512) 692-2522

Lewis County for Safe Tech Written Public Comments Opposing Permit No. WCF-0002/SEP25-0021

Date: September 5, 2025

To: Preston Pinkston, Planner II, Lewis County Planning Division
Re: Opposition to Permit No. WCF25-0002/SEP25-0021, Type III Application for a proposed 150-foot monopole tower at 262 Skyview Drive, Mossyrock, WA 98564

Dear Mr. Pinkston,

Lewis County for Safe Technology ("LCST") is a grassroots group of local residents, collectively opposed to Permit No. WCF25-0002/SEP25-0021, a Type III Wireless Communication Facilities Application ("WCF Application"). LCST requested that this firm prepare and submit these written comments in opposition on their behalf, and requests that they be placed in the record for the public hearing that has yet to be scheduled. Additionally, individual members have their own reasons to oppose placement at the proposed location, and many of them will attend the hearing that is yet to be scheduled to speak against the application. This Opposition provides a comprehensive rationale for denying the application, based on the procedural and substantive provisions in the Lewis County Code and otherwise-applicable state or federal laws.

We begin by noting that applicants for Type III Applications or special use permits have the burden of complying with all applicable land use requirements. *Noble Manor v. Pierce County,* 913 P.2d 417 (1991) (citing *Taylor v. Stevens Cy*., 759 P.2d 447 (1988) (questioned on other grounds regarding developer's vesting rights before change in zoning law). The application and supporting materials must establish a prima facie case that Applicant has met each and every substantive requirement in the County Code and Design Standards.

This burden of proof is critical for an application for a new tower, the wireless communication facility type *least favored* by the County. *See* LCC 15.50.025(1). A main goal of the Lewis County Comprehensive Plan is "to preserve the County's rural character with "policies that guide rural development…" *Lewis County Comprehensive Plan 2045 Periodic Update,*

adopted [insert date] 2025, p. 37. New tower permits allow industrial-type structures in peaceful low-density natural areas where these types of structures conflict with the Comprehensive Plan.

The Application does not meet the requirements of the County Code, or state and federal law for several key reasons.

First, the application does not comply with the submittal requirements for wireless communications sites listed on the Application for Wireless Communication and is missing a required report regarding the structural soundness of the design. The staff should have caught this during completeness review, but for some reason the application was deemed complete on August 11, 2025. Although this means the FCC "shot clock" will continue to run, the missing information means that Applicant has not made a *prima facie* case on the merits and has therefore failed in its burden of proof. The complete letter properly notes that additional "information, studies or plans" may be required as the case moves forward. LCST will address below several important items that must be provided to allow meaningful review.

Second, Applicant has not shown that it made any good faith effort to identify collocation opportunities as required by the Lewis County Code. Applicant's responses to this item in the Project Narrative provide no details regarding actions it took to find existing towers that could be suitable for collocation.

Third, the application materials claiming to address Washington State Environmental Policy Act ("SEPA") compliance are inadequate and conclusory. The "SEPA Checklist" (Application Exhibit D) contains only a summary statement: there are "none known" or "identified or observed" threatened and endangered species on or near the site. P. 70 WCF25–0002. The document references a "Washington Fish and Wildlife Priority Habitats and Species Report dated 4/29/25" but no such report is included. *Id.* Washington Administrative Code 220-610-00 designates 36 state-endangered species but Applicant's SEPA compliance statement only references two, Rocky Mountain Elk and Riverine. *Id.*

Fourth, the proposed tower is incompatible with the surrounding community and inconsistent with the County Code's purpose to "protect the health, safety, and welfare of the citizens of Lewis County, to ensure that permitting of wireless communication services is consistent with the Lewis County building code, comprehensive plan and associated development regulations, and to…minimize the total number of support structures and towers throughout the county." LCC 15.50.101(1).

Fifth, the proposed tower will negatively impact property values. Residents invested in this area for its peaceful natural setting and would not have invested if they knew an unsightly

tower would be constructed at the proposed location. The destruction of the scenic views of open sky, evergreen trees, and grassy hills will make their homes less attractive and desirable. LCST is submitting expert studies that demonstrate the negative impact of cell towers and other wireless infrastructure on nearby homes. With a home being the main source of wealth, the proposed tower will harm the residents financially with the degraded property values. Furthermore, the studies also show that the presence of a nearby tower makes homes less attractive to potential buyers.

I. The Application is Missing Required Documentation Containing Essential Safety and Site Plan Information.

The Lewis County Comprehensive Plan Goal NE 3 addresses hazards of development that create risk to life and property. Comp Plan. Vol 1p. 49. Policies to reduce these risks include "Prohibiting, discouraging, and/or mitigating development in areas of steep slopes or other areas with high potential for geological hazards. *Id.*

The WCF ordinance promotes this policy by requiring applications for new support towers to include expert evidence that the towers will meet essential safety requirements. LCC 15.50.040(2)(e) provides that "[t]he application materials shall include a report stamped, dated and signed by a licensed professional engineer registered in the State of Washington demonstrating the following:

> (i) The facility complies with all requirements of the International Building Code;
> (ii) The structural capability of the facility will support collocated antennas (if applicable);
> (iii) The facility complies with all applicable standards of the FAA and FCC, including RF energy standards.
> (iv) The basis for the calculation of capacities.

Applicant's response is that it will provide a structural analysis and foundation design showing that the facility complies with the International Building Code and structural capability when it submits a building permit. P. 14 WCF25–0002. This is entirely inadequate. It may be that Applicant will also have to secure a building permit, but the applicable ordinance here relates to the land use portion and it mandates a showing of code compliance. The application form for applications of this type expressly requires an "Engineers report indicating the following: (i) facility complies with all requirements of the Uniform Building Code; (ii) structural capability of the facility to support collocated antennas; … [and] basis for the calculation capabilities"; the applicant chose to not comply and this must be remedied by a demand that the required information be supplied now, not later and after the land use permit is granted.

The hearing examiner has no information on which to assess the structural safety of the proposed tower. Any decision on the part of the hearing examiner to grant approval will be based on incomplete information. This lack of information gives LCST no assurance that the proposed tower can withstand severe weather and seismic events. Lewis County is located in a seismically active region approximately 120 to 160 miles east of the Cascadia Subduction Zone, where a 600-mile long fault creates the risk of a 9.0 magnitude earthquake. https://www.pnsn.org/outreach/earthquakesources/csz (accessed September 5, 2025).

II. The Application Does Not Comply With the County Code's Collocation Requirements.

The Application fails to comply with LCC 15.50.030(1)(a), which requires Applicants to demonstrate a good faith effort to collocate on an existing facility.

The Lewis County Comprehensive Plan supports the implementation of a top-notch telecommunications network, but strikes a balance with other goals of maintaining the County's distinct rural character. Thus, the County regulates wireless infrastructure to minimize the negative impacts. Development standards for wireless facilities prioritize collocation as the first provision governing the development of wireless facilities. LCC 15.50.030(1)

The application is for a new support tower, the least-favored type of wireless facility permitted. A new support tower is "a structure *designed and constructed exclusively* to support a wireless communication facility or an antenna array, including monopoles, self-supporting towers, guy-wire support tower, and other similar structures. LCC 15.50.020(18) [emphasis added]. Such structures serve no other purpose than to support antennas and other transmitting equipment at a height needed to transmit radio signals as widely as possible to as many wireless consumers as possible, without interference or obstruction from nearby objects.

The exclusive use of these structures for wireless telecommunications limits their availability for other compatible uses, such as street lights and electric lines and adds yet another type of industrial structure to the growing number of utility facilities. County Code provisions addressing location preferences restrain this growth and ensure its compatibility with the Comprehensive Plan.

LCC 15.05.025(1) sets out the facility types and locations the County prefers, in a ranked list from most preferred to least preferred. At the bottom of this list are new support towers. LCC 15.05.025(1)(e). Notably absent from this least preferred facility type is any designated location for new support towers. As standalone structures untethered to already-existing wireless infrastructure, new towers are the most visually intrusive wireless facility.

Applicant's proposed tower is a new support tower, the lowest-ranked and least-favored type of wireless facility allowed by the County Code, and which undermines the Code's clear directive to preserve the County's rural character. Indeed, the County's Development Standards make it clear that collocation is the County's top priority in wireless permitting, and new support towers are last. *See* LCC 15.50.025(1) (listing five "Location Priorities" for new wireless communications identifies facilities, with collocation first, and new towers last). In furtherance of these priorities, LCC 15.50.030(1)(a) provides:

> The county *shall deny* an application for a new support tower if the applicant does not demonstrate a good faith effort to collocate on an existing facility. Applicants for new support towers *shall demonstrate* to the planning director that collocation is *not feasible* by showing that at least one of the following conditions exists:
>
> > (i) No existing towers or structures are located within the applicant's projected or planned service area for their facility; or
> > (ii) Existing towers or structures do not meet minimum structural specifications or cannot be reconfigured to achieve sufficient height for efficient and effective operations; or
> > (iii) Collocation would cause a nonconformance situation (e.g., exceeding height restrictions); or
> > (iv) Collocation would result in electronic, electromagnetic or other radio frequency interference with existing or proposed installations; or
> > (v) A reasonable financial arrangement between the applicant and the owner(s) of existing facilities could not be reached. LCC 15.50.030(1)(a) (emphasis added).

Applicant's narrative does not discuss this provision, much less address specific actions it took to identify collocation opportunities. P. 9 WCF25–0002. Applicant proffers only a conclusory statement asserting that "no collocation or support structure opportunities within the geographical area required to meet applicant's engineering requirements and coverage objective. There are no opportunities higher in preference therefore the proposal is for a new tower in compliance with this section." *Id.* However, the application does not indicate that Applicant has made any efforts to collocate on an existing facility, let alone describe those efforts, or explain why they were not successful. Thus, the Application does not comply with the requirement that it "include[s] the good faith efforts and measures taken to secure a higher priority location; how and why such efforts were unsuccessful." LCC 15.50.040(1)(e). LCC 15.50.040(2)(d) says that a new support tower proposal *shall* be denied if – as here – the applicant has not demonstrated that collocation is not feasible within the intended service area.

A search on Antenna.com shows another tower that Applicant appears to own that is .1 mile away from the proposed site. This already existing tower is well within Applicant's response to LCC 15.50.040(1)(e) that a geographic target area of ¼ mile, or .25 mile, in diameter was identified to meet Applicant's coverage objectives. (Exhibit A Antenna Search Photographs)

Harmony RF Documentation, Exhibit B in the application mentions "an existing tower" that Applicant's carrier, Verizon, has proposed to use to install nine antennas "in order to minimize visual impacts on the site." P. 17 WCF25–0002. This verbiage is confusing: it is unclear whether applicant and Verizon are referring to the nearby tower or has mischaracterized the proposed site by incorrectly contending there is an existing tower at the proposed site.

The application contains a "propagation map" that purports to show "RSRP levels" with certain values deemed "adequate" for outdoor, indoor, "making a call" and "no service." It is not possible to meaningfully analyze or validate any of the assumptions, input values or formulae that were used to generate this map. None of the underlying materials were made available. Applicant and Verizon should be required to provide the same kind of supporting information that is required by the FCC for these kinds of propagation maps. *See* 47 C.F.R. §1.1704(c)(3) - (7), and especially the link budget, parameter values and a statement of the propagation model that was used. It is not possible to validate or evaluate the colored areas in the maps without this information. Further, the applicant and Verizon should be required to explain why it chose to use -75 dBm for "Green," -85 dBm for "Yellow," and -95 dBm for "Blue." Finally, it is not clear whether "no color" "no service" means a complete absence of signal or merely coverage with some signal but it cannot support the ability to make or receive voice calls.

III. Applicant's Responses to The SEPA Checklist Do Not Support A Determination of Nonsignificance.

SEPA, RCW 43.21C et seq., recognizes the impact of development and industrial expansion and seeks to promote the quality of the environment for residents and visitors alike. RCW 43.21C.020(1). SEPA mandates detailed information in environmental checklists and requires assessing potential environmental damage to areas from development projects. *Conserv. Nw. v. Okanogan County*, 2016 Wash. App. LEXIS 1410, 89. (citing *Spokane County v. Eastern Washington Growth Management Hearing Board,* 176 Wn. App. 555 (2013)). Broad generalizations and formulaic language "assuming compliance with applicable standards" indicates a failure to "fully disclose and carefully consider" environmental impacts. *Id.* at 89-90.

State law and case precedent requires thorough and detailed responses to a SEPA but Applicant's responses are cursory and generalized. Applicant's response to Checklist Item B.1.e is representative:

> **e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**
>
> Minimal leveling is required for construction and access. The graveled fenced area is approximately 2500 square feet. [emphasis in original]. SEPA Environmental checklist Page 4, (p. 67 of Application)

These cursory responses make the SEPA Determination of Nonsignificance (DNS) issued for this project meaningless. The checklist omits consideration of: all threatened or endangered species close to the site and critical habitats. A cursory search on the IPaC website lists six endangered species, the bald and golden eagle, and eight birds. A map from Washington Fish & Wildlife indicates a wildlife area near the site of the proposed tower. See Exh C. Yet Applicant's responses specifically mentions two species, Rocky Mountain Elk and Riverine as "included" listed species and omits mention of a potential critical habitat near the site. *Id.* at 7 (p. 70 of Application).

Applicant's responses make it appear that very little observation of the ecological aspects of the site took place. The site's rural location, by its nature (absent any toxic conditions or wildlife disease outbreak), would generate at least several sightings of sparrows, maybe rabbits or rodents, and common insects. Applicant does not bother to list specific animal or bird species in its response to Item 5.a. Only "songbirds," listed as an example of "any birds and other animals that have been observed on or near the site or are known to be on or near the site" is circled. *Id.* Surely deer are at least known to be near the site but Applicant fails to list deer or any animals known to be near the site.

LCST and its members value the natural environment very much as it is a major reason they choose to live there and invest time, energy and money on their properties and surroundings. The hearing examiner should consider Applicant's lack of detailed information in the SEPA when he or she evaluates the potential environmental impact the proposed tower will have on the area.

IV. The Proposed Tower, Which Would Be Located in a Rural Development District, Would Adversely Impact the Visual Character of the Community and Damage Scenic Views.

The Lewis County Code states an express intent to "minimize the total number of [wireless] support structures and towers throughout the county." *See* LCC 15.50.010(1). Additionally, the Code encourages "careful design, siting, and landscape screening in development of new wireless communication facilities in relation to residential and school zone areas and *vistas*." LCC 15.50.010(3) (emphasis added).

These Code provisions work in tandem with the Code's Rural Development District designation, which is intended to "protect the rural character and rural small businesses that historically have served Lewis County residents." *See* LCC 17.100.010. Granting the Application would contravene the intent of these provisions and pave the way to the industrial encroachment that will harm this character.

The proposed tower is located in the RDD-5 zone, a designated rural development district that allows a density designation of one unit per five acres of land. *See* LCC 17.100. The terrain in this zone contains "combinations of steep slopes, tight soils, flood plains, and unbuildable critical areas…" LCC 17.100.010.

The RDD-5 zone lies in the foothills of the Cascade Mountains and contains lush forests and pristine lakes. The rural small businesses include Christmas tree and blueberry farms. Per the "Discover Lewis County" website that provides tourist information, farms in the Mossyrock area produce a large percentage of Washington State's blueberries and "a large supply of the nation's Christmas trees." Discover Lewis County https://discoverlewiscounty.com/mossyrock/ (accessed September 4, 2025).

Members of LCST who live in this area describe it as a quiet, idyllic, sparsely- populated area surrounded with beautiful natural scenic views. One member runs Adytum Sanctuary, a high-end bed and breakfast offering visitors the opportunity to relax and enjoy nature. Other members moved to the area and purchased properties to live in a pristine natural environment untouched by urban development.

Photo simulations of the proposed tower show a tall silver-colored steele monopole with sharp-looking, rectangular antennas that clashes with the soft and dark green hues of majestic evergreen trees and hilly slopes. Application p. 91. The view from downhill, looking up, depicts a foreboding industrial structure jutting straight up, much higher than the tree tops, intruding into the open sky. *Id.* p. 90

The residents cherish the views of pine trees, hills, and open sky. The proposed tower would destroy the character of the area and hurt the rural businesses that depend on the natural beauty of the district for income.

By endeavoring to keep the number of towers to the minimum necessary to provide personal wireless services, the County Code reduces the industrial encroachment of unsightly towers on the County's scenic evergreens, lakes, and mountains. The County Code's encouragement of the careful siting of new support towers "*in relation to…vistas*" indicates the value of these vistas to the County and its residents and the understanding that telecommunications infrastructure development must be aligned with these values. LCC 15.50.010(3).

V. The Proposed Tower, if Built, Will Reduce Property Values.

Again Applicant must carry its burden of proving that the proposed tower will not degrade property values. *See City of Medina v. T-Mobile USA,* 95 P.3d 377, 383 (2004) (Wireless carrier satisfied this burden with expert studies). In the instant case Applicant has not provided any evidence that the proposed tower would not negatively impact property values. LCST, however, will be providing an expert opinion from a local licensed realtor showing the opposite.

The expert opinion LCST will be submitting at the hearing is backed by published studies. One study found that "homes closer to cell towers sold at (generally) larger discounts," with homes within 500 feet of a tower selling at a 7.6% discount, and homes up to 1500 feet still experiencing a "statistically noticeable" negative effect. Joseph Hale & Jason Beck, *The Disamenity Value of Cellular Phone Towers on Home Prices in Savannah, Georgia*, 18(8) The Empirical Econ. Letters 871, 875 (Aug. 2019). Another study showed declines in housing prices within 0.72 kilometers of visible cell towers, ranging from 2.46% to 9.78%. Ermanno Affuso et al., *Wireless Towers and Home Values: An Alternative Valuation Approach Using a Spatial Econometric Analysis*, 56 J. Real Est. Fin. Econ. 653, 670 (2017). A third study found that "prices of properties decreased by just over 2%, on average, after a tower was built," with the effect diminishing with distance from the tower and nearly negligible after 656 feet. Sandy Bond, *The Effect of Distance to Cell Phone Towers on House Prices in Florida*, *Appraisal Journal* (2007). (Exhibit B Studies Showing Property Values Reduction).

Applicant has not provided any evidence showing no adverse impact to property values. LCST will supply expert testimony and present additional lay testimony at the hearing to show that the proposed tower will harm nearby property values. Applicant must at least rebut our evidence with persuasive expert testimony to prove that these projects will not harm the investments of nearby property owners. If they attempt to do so, we reserve the right to submit questions or provide a response. However, as the case stands now, the Hearing Examiner should deny the permit due to adverse effects on property values.

Conclusion

The hearing examiner can deny this permit application and remain consistent with Lewis County's goal of "promoting the development of a high-quality telecommunications network." CF 16. Comprehensive Plan, Vol 1, p. 80. Doing so assures LCST members and residents that the County is properly regulating the placement of towers and other wireless facilities to minimize the potential adverse impacts on public welfare and safety, rural small businesses, property values, scenic vistas, and the overall community character. *See Id* CF 16.2.

Applicant has not provided sufficient evidence to establish eligibility for the requested permit. LCST is submitting countervailing evidence addressing several mandatory criteria and substantive requirements necessary for granting such permit. There is a lack of public support, and significant opposition to the proposed tower. Therefore, the hearing examiner must deny this permit, as approval cannot be granted even with conditions intended to address the identified errors and omissions.

We appreciate the opportunity to make this submission and look forward to further developing the record through written and oral comments at the hearing.

Respectfully Submitted,

McCollough Law Firm PC
By: W. Scott McCollough

EXHIBIT A

262 Skyview Dr, Mossyrock, WA 98564, United States Submit

Results Summary

__1__ towers and __11__ antennas within a 3.0 mile radius of 262 Skyview Dr, Mossyrock, WA 98564, United States.

Registered Towers

ID	Carrier/Owner	Distance

Non-registered Towers

ID	Carrier/Owner	Distance
0	Harmoni Towers, Llc-chadr	0.1 mi

Multiple Antennas

ID	Carrier/Owner	Distance
1	Degoede Bulb Farms, Inc	1.0 mi
	Degoede Bulb Farms, Inc.	1.0 mi
2	Mossyrock School District	1.3 mi
	Mossyrock School District	1.3 mi
3	Lewis County Fire District #3	1.5 mi
	Mossyrock, City Of	1.5 mi
4	Mayfield Lake Youth Camp	2.1 mi
	Mayfield Lake Youth Camp	2.1 mi

Single Antennas

ID	Carrier/Owner	Distance
5	Girard, Gerald T	1.2 mi
6	Lewis County Fire District #3	1.3 mi

Exhibit A Antenna Search Photographs)

Ownership Info

Company	Harmoni Towers, Llc-chadr
Contact	
Phone	NA
Email	NA
Attn	NA
Address	Mossyrock Wa

Tower Characteristics

Filing #	2025-anm-512-oe
Latitude	46.5458
Longitude	-122.5046
Structure Type	NA
Status	Constructed
Date Constructed	04/01/2025
Ground Elev	1062 feet
Height of Structure	149.9 feet
Overall Height	1211.9 feet
Structure Address	Mossyrock Wa

View Satellite Map

View HD Satellite Maps 360°

EXHIBIT B

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Lewis County, Washington

Local office

Washington Fish And Wildlife Office

(360) 753-9440
(360) 753-9405

1009 College St Se

Ste 215
Lacey, WA 98503-1249

https://www.fws.gov/office/washington-fish-and-wildlife

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Gray Wolf Canis lupus There is **final** critical habitat for this species. https://ecos.fws.gov/ecp/species/4488	Endangered

Birds

NAME	STATUS
Marbled Murrelet Brachyramphus marmoratus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4467	Threatened
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout Salvelinus confluentus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8212	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee Bombus suckleyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete

If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Mar 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental

Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

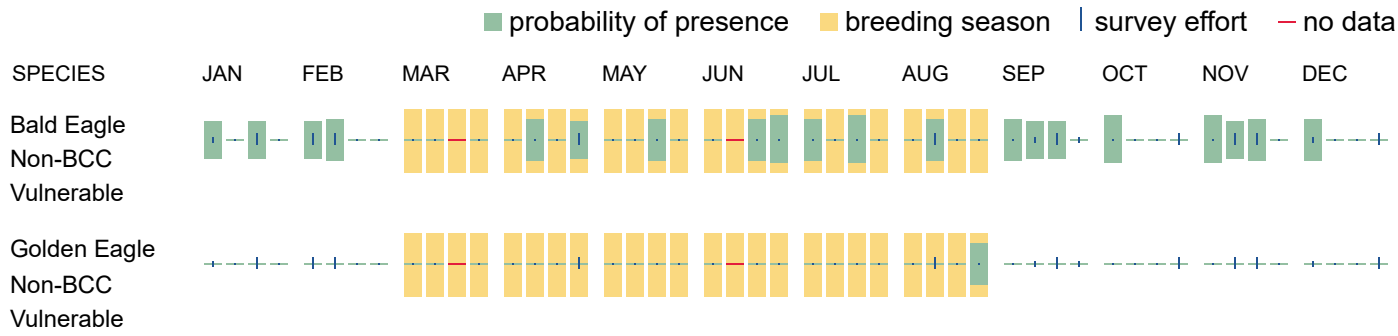
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Mar 1 to Aug 31
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Chestnut-backed Chickadee Poecile rufescens rufescens This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 31
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds Mar 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Rufous Hummingbird Selasphorus rufus — Breeds Apr 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

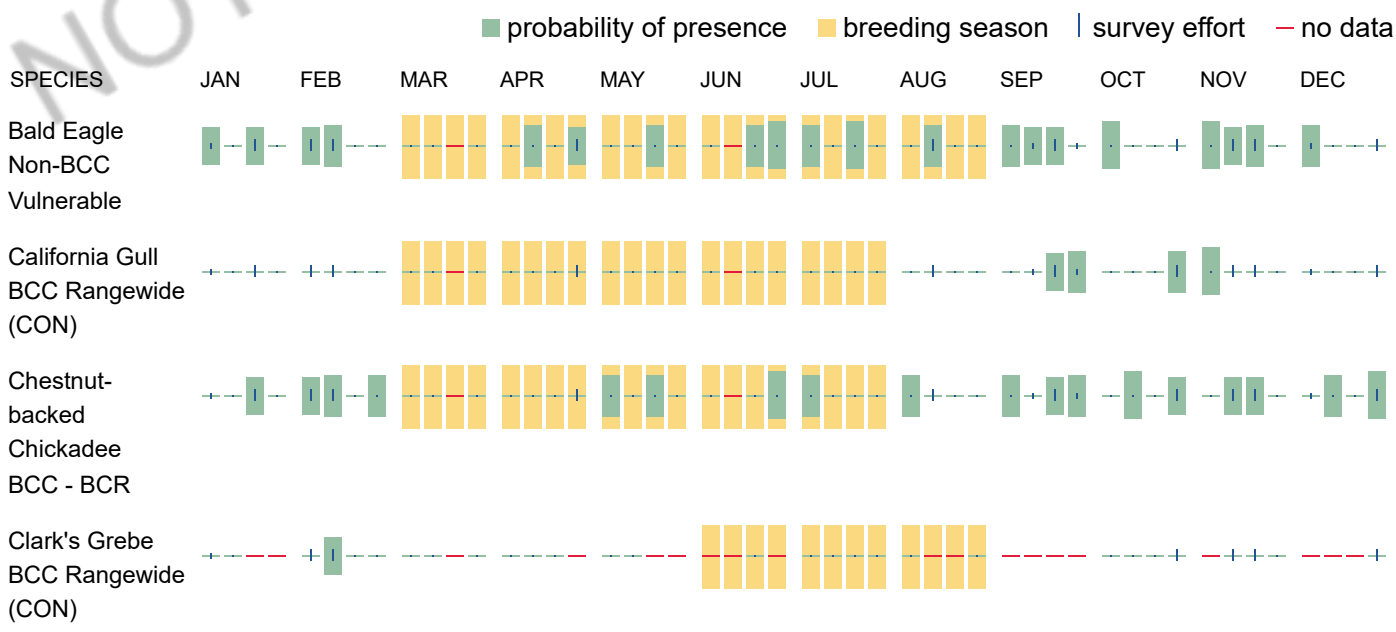
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

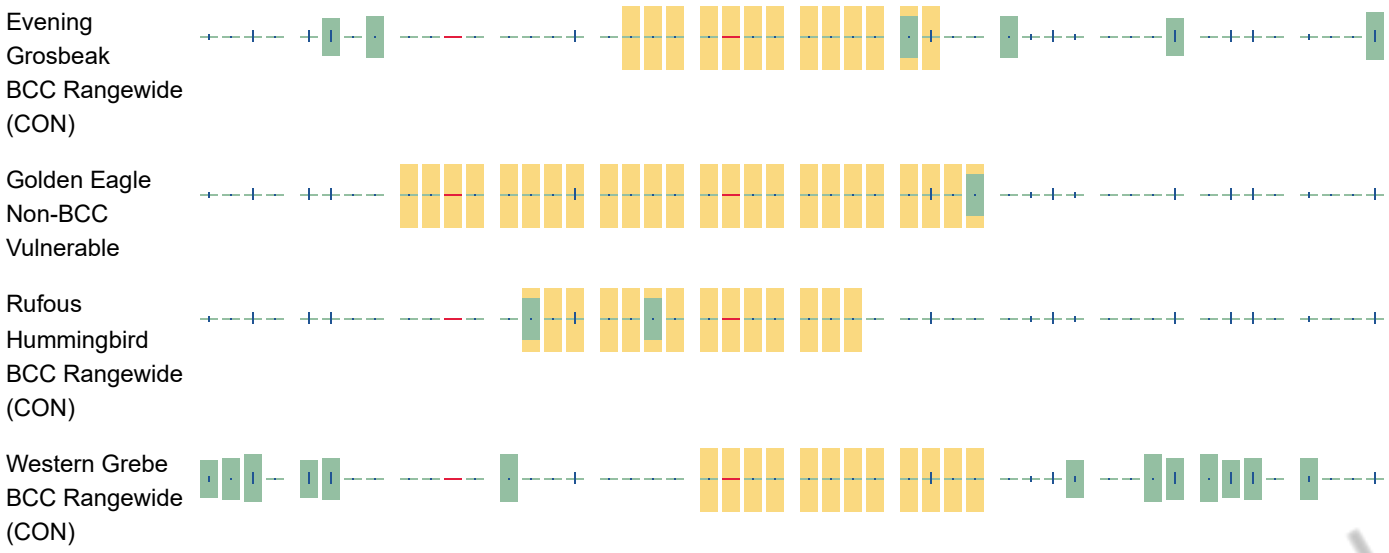
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project

review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE
R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

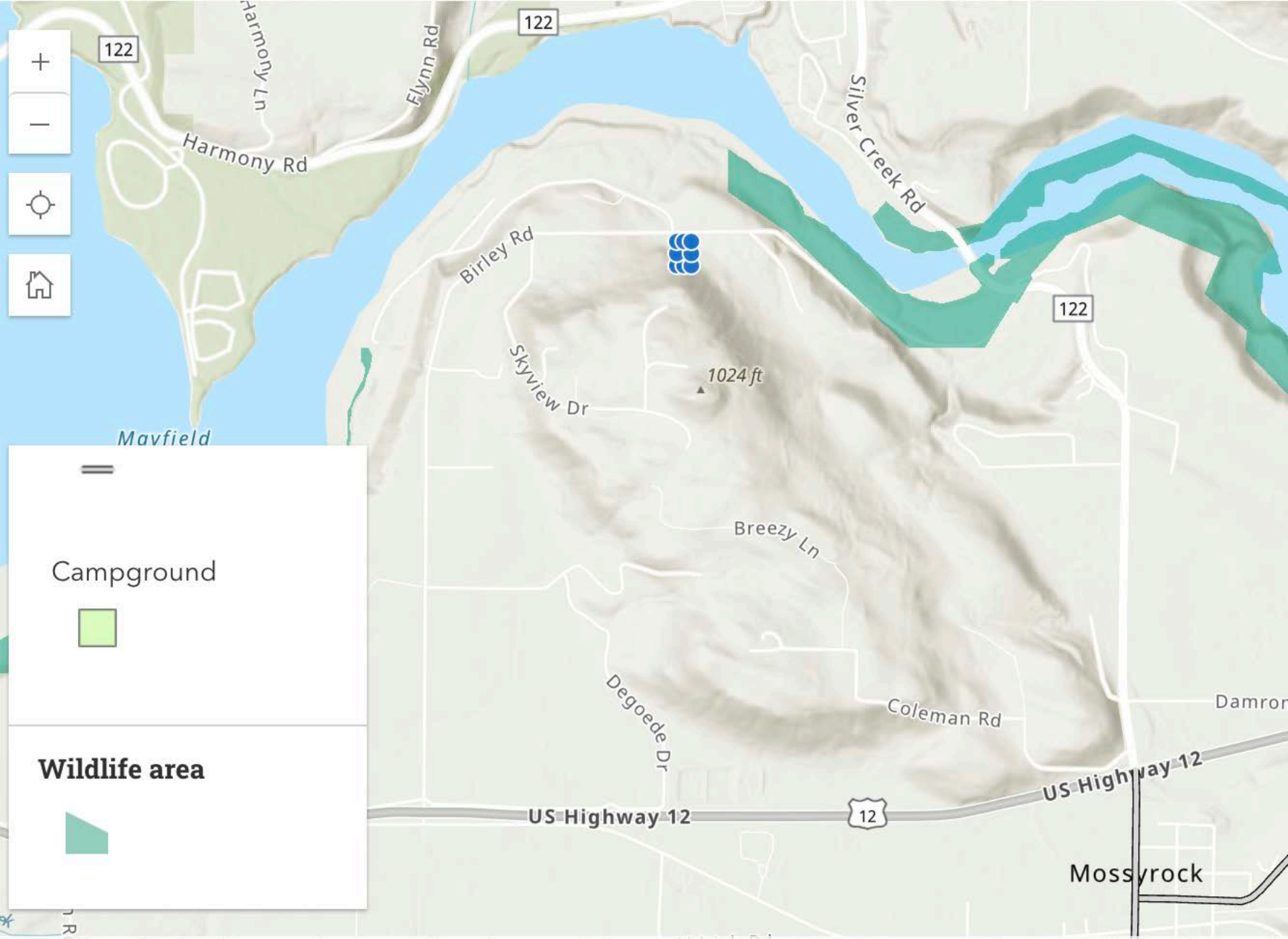

122
Harmony Ln
Flynn Rd
122
Harmony Rd
Silver Creek Rd
Birley Rd
122
Skyview Dr
1024 ft
Mayfield
Campground
Wildlife area
Breezy Ln
Degoede Dr
Coleman Rd
US Highway 12
12
US Highway 12
Mossyrock
Esri, NASA, NGA, USGS, FEMA | WSU Facilities Services GIS, WA State Parks GIS, Esri, TomTom, Garmin, Safe

EXHIBIT C

The Empirical Economics Letters, 18(8): (August 2019) *ISSN 1681 8997*

The Disamenity Value of Cellular Phone Towers on Home Prices in Savannah, Georgia

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Abstract: This paper examines the disamenities effect on home values from proximity to cellular phone towers. Previous works have drawn inconsistent conclusions and this study provides an additional data point. A hedonic pricing model is used with transaction data from Savannah, Georgia from 2007 to 2016. Results suggest proximity to cell phone towers can reduce selling price up to 7.6%. This result is consistent with the high end of results found by other studies. We also examine the effect of cell tower proximity in rising versus falling markets and find that the negative effect is larger when housing prices are declining.

Keywords: Real Estate Brokers, Brokers, Brokerage, Housing

JEL Classification Numbers: R23, R31, Q51

I. Introduction

Homes can be considered a bundle of characteristics. Some characteristics, such as more bathrooms, more square footage, and being in a good location, are desirable and can be expected to contribute to a higher sales price, ceteris paribus. Undesirable characteristics, then, may be associated with a negative effect on a home's value. Economists have examined the impacts of disamenities such as airport noise (Mieszkowski and Saper, 1978), toxic waste sites (Kohlhase, 1991), Superfund sites (Kiel and Williamson, 2007), wind turbines (Heintzelman and Tuttle, 2012), high voltage lines (Hamilton and Schwann, 1995) and others. This paper seeks to extend the literature on the effect of disamenities, specifically the home's proximity to a cellular phone tower, with a new data set.

The growth of cellular communication has been accompanied by an increase in the number of cellular communication antennas. While the owner of the land on which the antenna is installed receives a source of income, these towers may generate negative externalities for the nearby residents. One possible externality could come from a (real or perceived) effect on nearby resident health and well being. Some residents have complained that long-term exposure to electromagnetic fields near cellular towers has caused headaches, sleep disturbances, and other health effects (Fillipova and Rehm, 2014, Wyman and Morthope, 2018, Locke and Bloomquist, 2016, Heintzelman and Tuttle, 2012). While medical studies, such as the report by the National Cancer Institute (2019)

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have offered only weak evidence that long-term health issues are correlated with the extremely low frequency electromagnetic fields that are emitted by cell towers, the perception of these effects could still have an impact on home prices in the adjacent areas. Beyond potential adverse health effects, towers are often highly visible and possibly unpleasant. If an attractive view can increase the value of a home, an unattractive view may have a negative effect.

A number of papers have attempted to estimate the impact of cell phone tower proximity on home values, but existing studies fail to reach a consistent conclusion. Work by Filippova and Rehm (2011 and 2014) used transaction data from New Zealand and found little to no negative impact of cell tower proximity on home values. Rajapaksa et al. (2017) used data from Brisbane, Australia, and found a small negative effect. Using data from central Kentucky (USA), Locke and Bloomquist (2016) find a relatively large effect that ranges from 2 to 7.5% across different model specifications. Given the wide ranging and inconsistent conclusions of existing research, another data point may be useful. This paper combines housing transaction data from the Multiple Listing Service of Savannah, Georgia, USA, with GIS maps to provide another set of estimates for the housing price effect of proximity to cell phone towers. We also explore the possibility that the effect differs in upward vs. downward trending markets.

2. Framework for Empirical Analysis

Sirmans, Macpherson and Zeitz (2005), Murdoch, Singh, and Thayer (1993), and many others provide a thorough overview of the underlying theory of the hedonic pricing model and thus it is not reviewed in great detail here. The premise is that a house is a bundle of characteristics, both desirable and undesirable, evaluated by utility-maximizing consumers. The sales price of the home represents the capitalization of these features. Observable attributes such as interior and exterior features, locational factors, idiosyncratic characteristics associated with the house, and sales timing can be estimated via the hedonic pricing model.

We estimate the hedonic model with a ten-year period of data from January 2007 through December 2016from the Savannah Board of Realtors' Multiple Listing Service (MLS).Observations were restricted to existing homes that sold for between $50,000 and $1 million, and had no missing values. This resulted in a data set comprised of 34,335 usable observations. The average house in the sample was a single family dwelling (i.e. not a townhouse/condominium) with 1940 square feet, had two bathrooms, a fireplace, a two car garage, and sold in 2016.

The MLS data are rich enough to allow for the inclusion of a number of observable house characteristics. Table 1 lists, defines, and provides summary statistics for these variables.

Table 1: Summary Statistics and Variable Descriptions

Variable	Description	Mean	Std. Dev.
Price	Sales price of home	214696.8	138951.6
condo	=1 if condo	0.134	0.340
one_bedroom	=1 if 1 bedroom	0.018	0.131
two_bedroom	=1 if 2 bedrooms	0.105	0.306
three_bedroom	=1 if 3 bedrooms	0.587	0.492
four_bedroom	=1 if 4 bedrooms	0.243	0.428
five_bedroom	=1 if 5 bedrooms	0.043	0.202
sixplus_bedroom	=1 if 6+ bedrooms	0.005	0.072
one_fullbath	=1 if 1 full bath	0.112	0.315
two_fullbath	=1 if 2 full baths	0.699	0.458
three_fullbath	=1 if 3 full baths	0.156	0.363
four_fullbath	=1 if 4 fullbaths	0.027	0.163
fiveplus_fullbath	=1 if 5+ fullbaths	0.006	0.076
one_halfbath	=1 if 1 half bath	0.296	0.456
two_halfbath	=1 if 2 half baths	0.011	0.104
three_halfbath	=1 if three half baths	0.0004	0.020
fourplus_halfbath	=1 if 4+ half baths	0.0008	0.009
fireplace	=1 if has fireplace	0.618	0.485
one_garage	=1 if 1 garage space	0.131	0.336
two_garage	=1 if 2 garage spaces	0.485	0.499
threeplus_garage	=1 if 3 garage spaces	0.039	0.192
y2008	=1 if sold in 2008	0.079	0.270
y2009	=1 if sold in 2009	0.076	0.265
y2010	=1 if sold in 2010	0.076	0.264
y2011	=1 if sold in 2011	0.087	0.281
y2012	=1 if sold in 2012	0.094	0.292
y2013	=1 if sold in 2013	0.106	0.308
y2014	=1 if sold in 2014	0.111	0.314
y2015	=1 if sold in 2015	0.130	0.336
y2016	=1 if sold in 2016	0.141	0.347
six_ten_years	=1 if 6-10 years old	0.194	0.395
eleven_twentyfive_years	=1 if 11-25 years old	0.275	0.446
twentysix_fifty_years	=1 if 26-50 years old	0.191	0.392
fiftyoneyears_hundred_years	=1 if 51-100 years old	0.151	0.358
hundredplus_years	=1 if over 100 years old	0.036	0.185
sqft2	=1 if sqft>=1308 &<1574	0.200	0.399
sqft3	=1 if sqft >=1574 &<1919	0.200	0.399
sqft4	=1 if sqft>=1919 &<2515	0.200	0.400
sqft5	=1 if sqft>=2515	0.200	0.399

Table 1 continued

swimpool	=1 if has swimming pool	0.052	0.222
cell0-500	=1 if cell tower 0-500 ft	0.091	0.288
cell501-1000	=1 if cell tower 501-1000 ft	0.229	0.419
cell1001-1500	=1 if cell tower 1001-1500 ft	0.191	0.393
cell1501-2000	=1 if cell tower 1501-2000 ft	0.123	0.328
cell2001-2500	=1 if cell tower 2001-2500 ft	0.055	0.227
cell2501-3000	=1 if cell tower 2501-3000 ft	0.032	0.175
cell3001-3500	=1 if cell tower 3001-3500 ft	0.006	0.076
cell3501-4000	=1 if cell tower 3501-4000 ft	0.009	0.092
cell4001-4500	=1 if cell tower 4001-4500 ft	0.010	0.1
n=34,335			

To allow for non-linearity, we operationalize all independent variables as dummy variables similar to Levitt and Syverson (2008) and Beck, Bray, and Trapani (2018). The dependant variable is the natural log of sales price. Note that location of the home is control for via 6-digit zip code fixed effects. These were created by truncating available 9-digit codes for each observation. This resulted in 167 different locational fixed effects.

We used the geo-locational information on each home provided in the MLS in combination with GIS software to calculate the distance of each home to the nearest cell tower at the time of sale. Since information on the date of tower construction was available to us, we were able to measure the distance to the nearest tower at the time of each observation's sale. Following Locke and Blomquist (2016), distance to nearest tower was controlled for via a series of dummy variables representing 500 feet bands up to 4500 feet. Homes without a tower within 4500 feet are used as the reference group.

3. Empirical Results

The estimated coefficients mostly exhibit the expected signs with most reaching high levels of statistical significance. Larger homes and homes with desirable amenities, such as more full and half bathrooms, a fireplace, swimming pool, etc, sell for more. Since newer homes probably better match current buyer preferences and are less likely to need repair, it is unsurprising that older homes sell for less. The exception to this is homes that are one hundred years old or more, which sell for a premium. This is likely due to such homes being located in Savannah's well known and desirable historic district (see Cebula (2009) for a discussion of real estate in this area). The impact of the rise and fall of the national housing market can be seen in the results. Housing prices in the sample decreased through 2011 before rebounding and approaching their 2007 levels by 2016. 167 six-digit zip code locational controls were included in the model but not reported in Table 2. They were largely significant, suggesting the importance of house location.

Table 2: OLS Results with Robust Standard Errors ((Dep Var: ln(price))

Variable	Coef.	Robust Std. Err.	Variable	Coef.	Robust Std. Err.
condo	-0.075***	0.006	*y2014*	-0.177***	0.006
onebedroom	-0.163***	0.017	*y2015*	-0.109***	0.006
threebedroom	-0.024***	0.007			
fourbedroom	-0.055***	0.008	*y2016*	-0.065***	0.006
fivebedroom	-0.089***	0.012	*six_tenyears*	-0.018***	0.004
sixplusbedroom	-0.138***	0.032	*eleven_twentyfiveyears*	-0.043***	0.004
twofullbath	0.186***	0.007	*twentysix_fiftyyears*	-0.108***	0.006
threefullbath	0.329***	0.009	*fiftyoneyears_hundredyears*	-0.061***	0.010
fourfullbath	0.505***	0.013	*hundredplusyears*	0.034*	0.018
fiveplusfullbath	0.630***	0.027	*sqft2*	0.157***	0.005
onehalfbath	0.091***	0.003	*sqft3*	0.285***	0.006
twohalfbath	0.163***	0.018	*sqft4*	0.454***	0.007
threehalfbath	0.289	0.115	*sqft5*	0.671***	0.008
fourplushalfbath	0.232***	0.051	*swimpool*	0.096***	0.007
fireplace	0.103***	0.003	*cell0_500*	-0.076***	0.014
onegarage	0.637***	0.005	*cell501_1000*	-0.072***	0.013
twogarage	0.159***	0.005	*cell1001_1500*	-0.045***	0.013
threeplusgarage	0.318***	0.009	*cell1501_2000*	-0.003	0.013
y2008	-0.054***	0.006	*cell2001_2500*	0.003	0.013
y2009	-0.148***	0.006	*cell2501_3000*	0.008	0.013
y2010	-0.214***	0.007	*cell3001_3500*	-0.003	0.020
y2011	-0.304***	0.007	*cell3501_4000*	-0.004	0.014
y2012	-0.291***	0.006	*cell4001_4500*	0.020	0.11
y2013	-0.227***	0.006	Constant	11.464***	0.048

Note: n= 34,335; F-Statistic = 558.59; Prob F: = 0.00; R^2 = 0.7721. 167 6-digit zip code controls present but not reported

Our variables of interest in this model are the ones associated with proximity to cell phone towers. Following the methodology of Locke and Blomquist (2016), we created dummy variables each representing the observation being located within a 500 feet band, up to 4500 feet. Results show a rough taper, with homes closer to cell towers selling at a (generally) larger discounts. This result peeks at 7.6% with homes closest to a tower (within 500 feet) but is still negative and statistically noticeable up to 1500 feet. These results suggest the negative effect disappears beyond 1500 feet. Our results are quite

similar to those of Locke and Blomquist (2016) through the first three 500 feet bands[1]. A notable difference between our results and those of Locke and Blomquist is that we see the effect disappear by 1500 feet, while they observe it fading, but still present, through 4500 feet.

It may be advisable to view the presented results as upper bounds on the disamenities effect in that endogeniety may be a factor. It is possible that cell towers may locate, when possible, to areas where land prices are low and avoid specific areas where land values are high. If this is true, the causal impact of a tower may be lower than the reported regression coefficient.

From 2007 through 2011, home prices were falling in the Savannah area. They began rising again in 2012 and continued this trend through the remainder of the sample period. For this reason, 2007-2011 are henceforth considered downward trending years while 2012-2016 are considered upward trending years. We now explore the possibility that disamenities have heterogeneous effects in upward vs. downward trending years.

Table 3: Upward vs. Downward Trending Market Comparison

	Downward Trending Years, 2007-2011		**Upward Trending Years, 2012-2016**	
	Coef	**Std.Error**	**Coef**	**Std.Error**
cell0-500	-0.088***	0.024	-0.070***	0.019
cell501-1000	-0.088***	0.022	-0.064***	0.017
cell1001-1500	-0.058***	0.022	-0.039**	0.017
cell1501-2000	-0.123	0.022	0.004	0.017
cell2001-2500	0.014	0.022	0.001	0.018
cell2501-3000	-0.006	0.022	0.015	0.018
cell3001-3500	-0.014	0.033	-0.043*	0.025
cell3501-4000	-0.028	0.023	0.018	0.018
cell4001-4500	0.028*	0.017	0.014	0.015
	n=14,313		n=20,002	

Results in Table 3 show that the disamenity effect of cell tower proximity is larger for homes during downward trending years. The estimated effect tops out at 8.8% for homes within 500 feet of a tower for the period 2007-2011, and 7% for homes in the 2012-2016 period.

[1] We find the effects to be 7.6%, 7.2% and 4.5%, while their results find the effects to be 7.5%, 6.1%, and 6.3%, for the 0-500ft, 500-1000ft, and 1000-1500ft bands, respectively.

4. Conclusion

Existing studies on the effect of a nearby cell tower on home sales prices have produced a wide range of inconsistent results. Some work finds a large effect, some work finds a small effect, and some work finds no noticeable effect. This paper uses a new data set, ten years of MLS data from Savannah, GA, to add another data point regarding the impact of cell phone towers on nearby home values. We find that homes close to towers sell for a discount of up to 7.6% and that any noticeable effect disappears at 1500 feet. Our results are consistent with the high end of results from other works. Since we cannot rule out the possibility that towers are endogenously located in areas with low land values, it may be best to view these results as an upper bound. The temporal effects of cell towers were also examined and it was found that the discount associated with proximity to a tower is smaller during times of upward trending home prices versus times when home prices are falling.

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J Real Estate Finan Econ (2018) 56:653–676
DOI 10.1007/s11146-017-9600-9

Wireless Towers and Home Values: An Alternative Valuation Approach Using a Spatial Econometric Analysis

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Published online: 18 February 2017

Abstract This is the first study to use an hedonic spatial autoregressive model to assess the impact of wireless communication towers on the value of residential properties. Using quantile analyses based on minimum distances between sold properties and visible and non-visible towers, we examine the relationship between property values and wireless tower proximity and visibility within various specified radii for homes sold after tower construction. For properties located within 0.72 kilometers of the closest tower, results reveal significant social welfare costs with values declining 2.46% on average, and up to 9.78% for homes within tower visibility range compared to homes outside tower visibility range; in aggregate, properties within the 0.72-kilometer band lose over $24 million dollars.

JEL Classifications C5 · K32 · Q51 · R21 · R32 · R38 · R58

Keywords Hedonic analysis · Housing value · Land planning · Public planning · Spatial econometrics · Urban externalities · Wireless tower impacts

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In less than 20 years, the number of wireless devices in use[1] in the United States increased 1045%, growing from 340,213 in 1985 to over 355 million in 2014 (CTIA 2015). A growing number of Americans now rely solely on their wireless phones for communication. As of the end of 2014, the Centers for Disease Control and Prevention's National Center for Health Statistics reports that 44% of American households no longer subscribe to landline telephone service; they predict that by the end of 2015, a majority will have severed the cord (Centers for Disease Control and Prevention 2015). U.S. wireless device numbers are truly staggering: 2014 usage comprised 2.45 trillion voice minutes, 4.06 trillion megabytes of data, 1.92 trillion text messages, and 151.99 billion multimedia messages (CTIA 2015). Incredibly, even on the heels of a doubling of wireless data usage from 2012 to 2013, analysts expect data use to surge, growing by more than 650% by 2018 (Cisco 2013). In 2012, wireless industry employment topped 3.8 million people—2.6% of the U.S. workforce (Entner 2012). Analysts predict the industry will create 1.2 million new jobs by 2017 (Pearce et al. 2013). U.S. wireless carriers' capital investment exceeded $33 billion in 2013—a record annual high—and wireless industry experts project an additional $260 billion in new capital investment over the next 10 years (CTIA 2015), adding $2.6 trillion to U.S. gross domestic product (Summers 2010). Perhaps the most surprising, yet at the same time most impressive statistic is that by comparison, the total value of the U.S. wireless industry—currently $196 billion in 2012—exceeds that of agriculture, hotels and lodging, and air transportation (Entner 2012).

Without question, there are many societal benefits offered by the last two decades' myriad advances in wireless technologies. Ease of use and convenience, lower equipment pricing, increasingly competitive rate plans, surges in wireless industry employment, considerable economic multiplier effects from large-scale wireless industry capital investment, and significant realized and projected annual contributions to GDP all work to make the U.S. wireless industry an ever-increasing, important part of our daily lives and our national economy. Yet to date, a largely overlooked societal cost is the potential negative impact on residential property values caused by the exponential proliferation of the number of cell sites[2] necessary to support the wireless industry's rapid growth. In 1985, there were only 900 cell sites in the U.S., but by the end of 2014, the number had increased by 22,778% (CTIA 2015). Of the more than 298,000 cell sites in the U.S., nearly 70% are located on tower structures (Airwave Management, LLC 2013). Amidst intense competition to meet seemingly unceasing demand, providers work continually to improve their wireless service coverage. As they do so, it is logical to expect construction of an increasing number of new wireless towers, located closer and closer together in many urban and suburban areas. As this happens, it is also logical to expect an increasing number of homeowners to question if, and to what extent proximity to a wireless tower affects home values. Those concerned with such questions might also hope that public policy makers will begin asking the same questions, and more importantly, consider the ramifications of the answers as they manage the increasing pressures placed on wireless tower regulatory planning and approval processes.

[1] Wireless devices include special feature phones, smartphones, and tablets.

[2] CTIA defines a cell site as the location of wireless antenna and network communications equipment necessary to provide wireless service in a geographic area (CTIA 2015).

Considering the expected future increases in wireless device users and the cell sites supporting them, this is a critically important question for our time. However, only a few researchers have examined this issue, all yielding somewhat mixed results. In all, the extant literature includes six relevant studies. The first is perceptions-based, offering residents' opinions of how tower proximity influences property values (Bond and Beamish 2005). The second combines a similar perceptions-based component with an hedonic model to estimate sales price impacts (Bond and Wang 2005). The remaining four studies take a strictly empirical approach using hedonic modeling estimations and different types of spatial analysis techniques (Bond 2007a, b; Filippova and Rehm 2011; Locke and Blomquist 2016). Unfortunately, each study suffers from flaws of one sort or another—time invariant issues, inaccurate spatial modeling techniques, or other troublesome variable misspecifications. In essence, the results of these studies are either inconclusive or show only minimal negative price effects due to wireless tower proximity.

In our study though, we use a robust approach for gauging home values relative to tower proximity. Similar to others, our study includes hedonic modeling to capture distinctive property characteristics, yet it is distinctly different from others in two important respects. By performing the analysis within varying radii bands based on quartiles of the distance from the closest wireless tower, we are able to detect potential marginal price gradients of each property across the banded space. More importantly, by conducting a series of robust spatial econometric tests, we are able to identify and use the most unbiased, efficient spatial model that is best suited for the inferential analysis of our research question. The results underscore our concerns that previous studies may potentially suffer from bias due to their failures to address spatial correlation issues typical in hedonic model studies. Two significant reasons contribute to our apprehensions. The first is that Ordinary Least Squares (OLS) estimations are biased and inefficient in the presence of spatial correlations of dependent variables and residuals. The second is that by not accounting for spatial autocorrelation, it is unlikely any hedonic model can correctly disentangle either direct and/or indirect effects of (dis)amenities on housing prices. Research shows the latter is particularly useful when assessing the impact of corrective policy solutions subsequent to market failures (LeSage and Pace 2009). This is important because our research poses potentially significant policy implications, all of which we believe will most likely, yet for substantially different reasons, be of keen interest to governmental and planning officials, wireless tower operators and service providers, neighborhood activist groups, and private property rights' advocates.

In the second section of our paper, we discuss the relevant literature. In the third section, we delineate our data and define our variables. In the fourth section, we develop our hypotheses and methodology. In the fifth section, we present our empirical results, and the final section concludes.

Literature Review

McDonough (2003) states "…proximity to a wireless tower needs to be considered as a negative amenity that may reduce property valuation" (McDonough 2003, p. 29).

Despite this recognition and the ongoing rapid expansion of the wireless industry, research examining the relationship between wireless tower proximity and home values remains quite limited. Two early studies commissioned by a major wireless service provider look at potential health and visual impacts that wireless towers[3] may have on property values. Bond and Beamish (2005) report that although the studies' results remain secretive, their private review of the results confirms no statistically significant relationships exist. They note, however, that because the studies involve limited sales data, and the underwriter is also a service provider, the question of biased results is potentially concerning.

Some researchers tackle the question using perceptual studies. Bond and Beamish (2005) survey residents in ten Christchurch, New Zealand suburbs—half being study areas (residents living within 300 m of a tower) and half being a control group (residents living more than 1 km from a tower). The authors aim to gauge residents' perceptions about whether and to what extent wireless tower proximity influences property values. Not surprisingly, those living far from a tower express less concern than those living close to one. Distance from a tower largely drove respondents' answers, but in sum, the authors find expectations of more than a 20% price reduction for properties within close tower proximity.

Bond and Wang (2005) combine a perceptual study with an empirical investigation. The perceptual component outcomes are quite similar to those of Bond and Beamish (2005). Their survey's respondents believe that proximity to a wireless tower causes property values to decrease from 10% to more than 20%. The empirical portion of their study includes approximately 4000 home sales spanning from 1986 to 2002 in four different suburbs. The authors' hedonic model includes a dummy variable that captures whether sales occur before or after tower construction. A potential shortcoming of this study could be the authors' choice to measure distances from cell towers not to individual homes, but rather, to a particular street within the study area. Their hedonic models do not account for potential spatial dependence of price and error structure. Their estimations produce mixed results, with negative price effects in two suburbs, a positive price effect in a third, and no significance in the fourth.

Bond (2007a) offers a methodological improvement by calculating exact distances between towers and included properties. Using a dummy variable to capture if a sale occurs before or after tower construction, the author also accounts for sales price time-effects by deflating sales prices to the consumer price index, and includes a time of sale variable in the estimations. Using four of the same suburbs from the earlier work of Bond and Wang (2005), the results show sales price reductions of approximately 15% after tower construction, diminishing as distance from a tower increases. Past 300 m, the negative price effect is negligible. Unfortunately, the results lack consistency, producing a positive price effect in one of the four neighborhoods. This may suggest a possible model misspecification error, or the effect of some other unobservable externality.

Bond (2007b) conducts a similar study using Orange County, Florida wireless tower and sales transaction data. Empirical results indicate a tower's presence yields a statistically significant and negative impact on price. Even so, the author notes the negative price effects are of little consequence.

[3] In their paper, the authors refer to wireless towers as cellular phone base stations.

Filippova and Rehm (2011) investigate tower proximity impacts on property values using property sales data from Auckland, New Zealand. Their final geocoded dataset includes approximately 56,000 sales observations dating from 2005 to 2007, and 521 tower locations. Highly critical of earlier studies' methodologies, the authors emphasize they took care to "ensure that integration dates of nearest cell towers did not occur after the date of sale" (Filippova and Rehm 2011, p. 250). To account for negative impacts that non-residential areas might have on residential area property values (for example, see Bowes and Ihlanfeldt 2001; Grass 1992; Nelson and McCleskey 1990; Mahan et al. 2000), the authors divide their sample into two parts. The first group includes only the 49 towers within residential areas, and all properties within a 500-m radius of existing towers. They also include a dummy variable for tower type, which they describe as lamppost, single monopole, or armed monopole (one with a triangular structure at the top). Generally, their residential area estimations produce no statistical significance. Not surprising, given the extremely close proximity to a tower, the lone exception is for houses located within 100 m of an armed monopole, which suffer a 10.7% price reduction. Estimations for the second group, which includes all towers in the entire study area, yield results similar to those in the first group. As such, the authors conclude that with the exception of a small number of armed monopole towers, wireless tower proximity does not negatively affect sales price.

More recently, Locke and Blomquist (2016) explore the question at hand. They use housing sales (including repeat sales) from 2000 to 2012 occurring in Louisville and Elizabethtown, Kentucky, geocoding each sold property to the street address listed in the sales data. They develop a number of tower location-specific characteristics such as census tract, and distances to major roads, railroads, and military bases. The authors state that, "Holding all else constant, the owner of a communication antenna will attempt to locate the antenna in an area that minimizes the antenna owner's cost" (Locke and Blomquist 2016, p. 134). At first glance, this statement seems obvious, if for no other reason than it makes good business sense. Further thought, however, draws question to the authors' additional statement that, "It appears that communication antennas are in fact located in areas where properties are less valuable" (Locke and Blomquist 2016, p. 134). One might infer from this that carriers strive mainly to construct towers in low-value areas simply to save money. Yet because intuition suggests carriers increase earnings by increasing subscribers, locating towers only in low-valued areas, and hence, providing service coverage only to presumably low-income people does not make good business sense. It seems, therefore, that the authors miss the other side of the coin, which is, in fact, not all towers appear in areas where properties are less valuable, but rather, owners will also construct towers in areas where properties are more valuable in order to fill holes in their service coverage. Indeed, tower location may be a source of endogeneity. However, income, population density, and other unobserved neighborhood characteristics could be instrumental for both homeowners' property and wireless carriers' tower location choices.

Inclusion of spatial considerations in addition to hedonic characteristics in their modeling is a good choice, as it adds robustness to their results. However, as with previous studies, across all model estimations, the authors do not account for potential

spatial correlation of price and error structure, finding only slight degrees of price reductions due to tower proximity, again, diminishing with distance.

Data

To investigate if and to what extent wireless tower proximity impacts home values we combine two datasets. The first includes 23,309 residential property sales occurring in Mobile County, Alabama between 1999 and 2015.[4] We deflate housing prices to a base year of 2014 using the U.S. Bureau of Labor Statistics' Housing Consumer Price Index. The second includes 149 wireless towers located in Mobile County, Alabama.[5] In addition to certain property characteristics, we also include key census tract-level demographic data.[6]

Following Locke and Blomquist (2016), we conduct a visibility analysis of the wireless towers located in the study area. We do so using Viewshed[7] and a 30-m resolution digital elevation map of Mobile County, Alabama.[8] Following Paterson and Boyle (2002), we calculate the visibility for a 360° circle and 1-km radius, including the aboveground tower height, and assume that the average height of an observer's eyes is 1.75 m above the ground at each property's location. Figure 1, Panel A illustrates the spatial distribution of towers, and Fig. 1, Panel B illustrates the Mobile County, Alabama property locations.

At a larger scale, Fig. 2 shows the visibility of towers and properties located in the most urbanized portion of the Mobile County, Alabama.[9] Fig. 2 helps to clarify graphically the idea of the indirect effect of a wireless tower. For example, although some properties lie immediately outside of the border of the visibility range (indicated in the red area), they are contiguous to properties that lie within the border of the visibility range. If there are spatial correlations between property values and tower locations, then we argue that a tower affects both the value of the property location from which the tower is visible, and indirectly, the values of neighboring properties from which the tower is not visible. Additionally, towers that are farther away, but that are still visible from a property, may potentially influence a property's value through a sort of spillover effect carried over across neighboring properties within the tower visibility space.

We compute the minimum distance from each housing unit to the closest wireless tower using the Haversine distance formula, which takes into account the curvature of the Earth. We calculate the distance of housing unit i to the closest wireless tower j as:

[4] Sold properties data draw from the Gulf Coast Multiple Listing Service, Inc., a wholly owned subsidiary of the Mobile Area Association of Realtors, Inc.

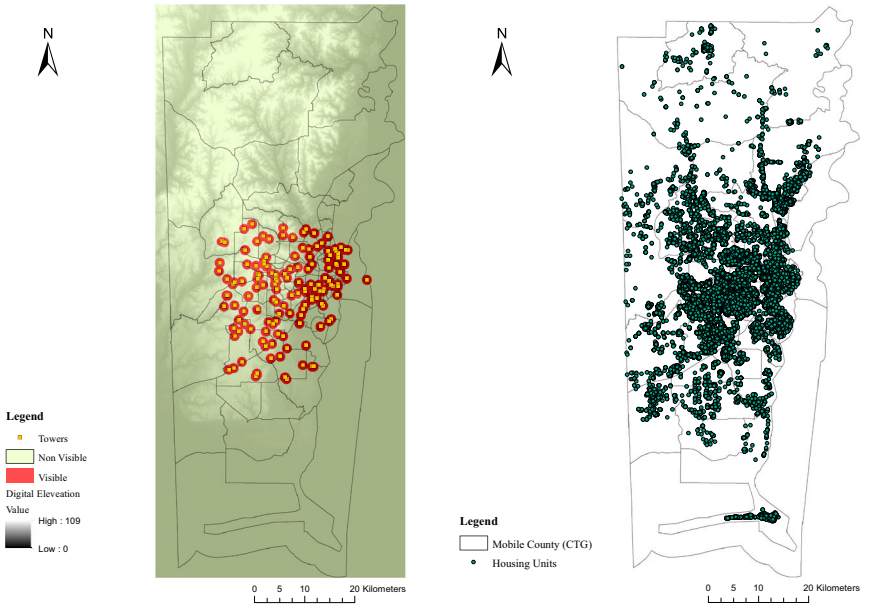
[5] These data draw from the U.S. Federal Communication Commission's Antenna Structure Registration database, available at http://wireless.fcc.gov/antenna/index.htm?job=home.

[6] These data draw from the U.S. Census Bureau, available at http://www.census.gov.

[7] The Viewshed tool is available as part ESRI ArcGIS® software package.

[8] Digital elevation maps draw from publicly available information hosted by the Geospatial Data Gateway of the U.S. Department of Agriculture's Natural Resources Conservation Service.

[9] An anonymous referee observed that every property within a 1 km radius of a tower is also within the towers' viewshed. We believe that this unusual result is consistent with the average height of a wireless tower in our dataset of approximately 60 m, and, more importantly, with the fact that our property sales data draw from a fairly flat coastal geographical area (i.e., the average housing elevation of our sample ≈ 11 m above sea level).



(a) Spatial Distribution of Tower (b) Spatial distribution of properties.

Fig. 1 Visibility Analysis: smaller scale

$$d_{ij} = min\left\{2r\ arcsin\left[\left(haversine\left(\varphi_j - \varphi_i\right) + cos(\varphi_i)cos\left(\varphi_j\right)haversine\left(\lambda_j - \lambda_i\right)^{0.5}\right]\right\} \quad (1)$$

where r is equal to the Earth's radius of 6371 km, φ and λ are latitudes and longitudes of property and wireless tower locations expressed in radians. The average minimum distance of a property to a tower is 2.98 km, and we expect a negligible price impact for properties located farther away from a tower than this average. To investigate further the impact of towers on those dwellings that are closer, we conduct a sensitivity analysis using four subsamples based on quartiles of the minimum distance to the closest tower. The first, second, third, and fourth subsamples include houses within radii bands of between 0 to 0.72 km, 0.72 km to 1.13 km, 1.13 km to 1.88 km, and 1.88 km to 41 km of the closest tower, respectively. Table 1 lists and defines all of the variables we use in our analysis and summarizes the statistics for the whole sample of 23,309 properties. Table 2 presents the descriptive statistics of the variables across all four subsamples.

Methodology

Consistent with the literature, we use an hedonic model to investigate the relationship between property value and wireless tower proximity. Rosen (1974) was the first

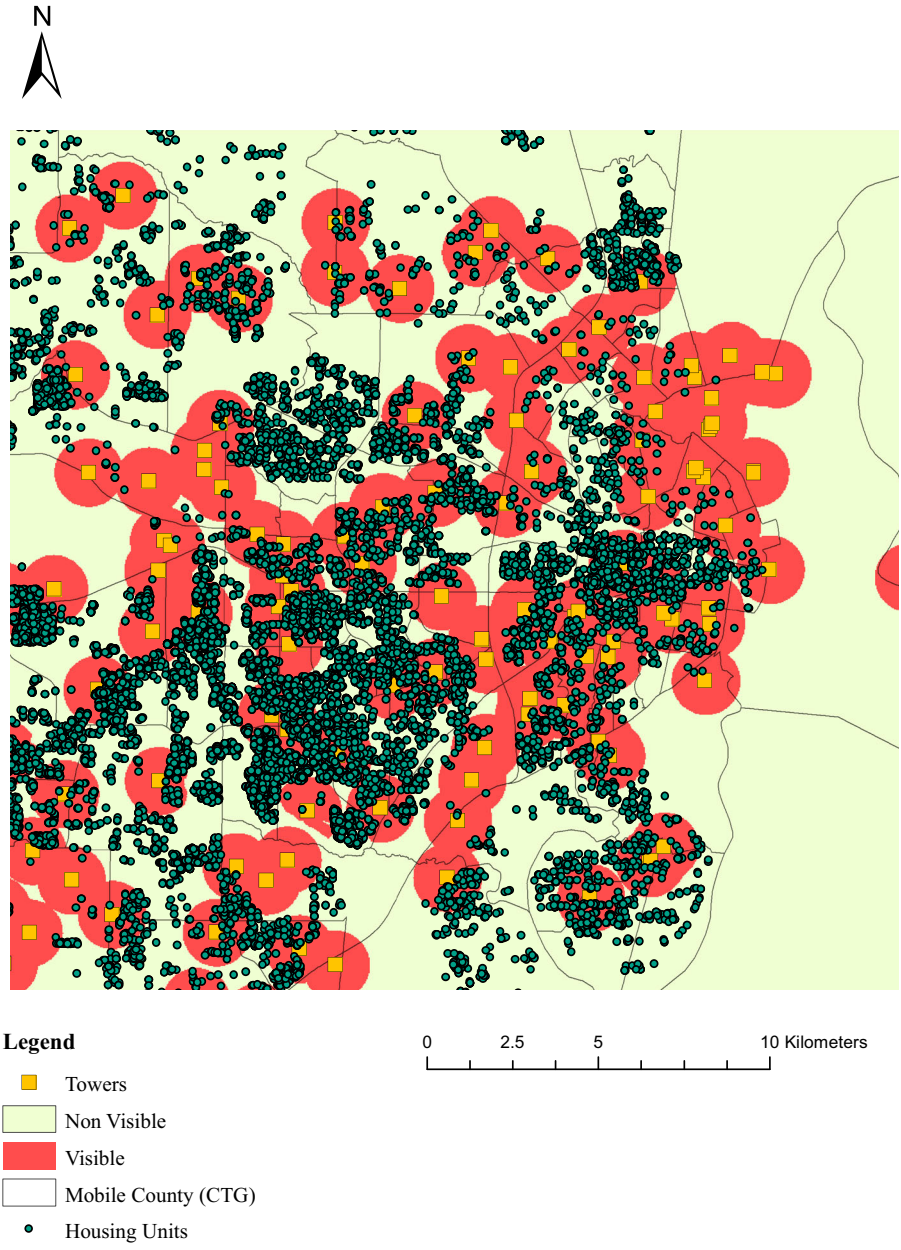


Fig. 2 Visibility Analysis: larger scale

researcher to derive a relationship between the price of a good and its characteristics. His work is widely used in real estate and urban economics research as an indirect method of revealing preferences used to analyze environmental externalities. As such, we assume that the property price is a function of the intrinsic characteristics of the property, neighborhood qualities, demographic characteristics, distance to wireless towers, and a spatial process (essentially, the spatial relationship between objects).

Table 1 Summary Statistics

Variable	Definition	Full Sample	
		Mean	SD
Price	inflation adjusted property sales price	167,592.3	124,777.1
Distance	distance between the property and the tower	2.980	5.453
D*	1 if property sale occurs after tower construction	16,393	69.742
V*	1 if the tower is visible	9448	74.956
h_tower	height of the tower	59.148	21.050
Age	age of property in years	23.566	19.389
Bedrooms	number of bedrooms in a property	3.285	.675
Bathrooms	total number of bathrooms in a property	2.135	.671
Onestory*	1 if number of stories is 1	1860	41.371
Twostories*	1 if number of stories is 2	2275	45.310
Car shelter*	1 if a property has a car shelter	15,023	73.078
Fireplace*	1 if a property has a fireplace	15,080	72.965
Fence*	1 if exterior has a fence	9375	74.862
Deck*	1 if exterior has a deck	5377	64.317
Pool*	1 if exterior has a pool	189	13.692
Brick*	1 if construction is primarily brick	16,500	69.426
Rural*	1 if population is less than 2500 per census tract	2644	48.416
distCBD	distance to downtown Mobile in kilometers	17.957	8.695
Towers	number of wireless towers per census tract	4.305	5.709
Income	median income per census tract	66,768.36	20,299.91
Black	African-American population per census tract expressed in units	1070.72	812.315
Unemployment	unemployment rate per census tract expressed in percentage points	9.207	5.417
N	number of observations	23,309	

The table above presents the summary statistics for the variables included in the entire dataset; year and zip code dummies are not shown;

*binary variables (assumed to follow the binomial distribution): means and standard deviations for these variables are computed for the binomial distribution

Hence, the econometric model used to examine the potential external impact of a wireless tower on property price takes the following form:

$$\ln(Price)_i = \beta_0 + \beta_1 \ln(Distance_i) + \beta_2 D + \beta_3 D{\cdot}\ln(Distance_i) + \beta_4 V + \beta_5 V{\cdot}\ln(Distance_i) + \beta_6 h\_tower_i + \beta_7 V{\cdot}h\_tower_i + \beta_8 Age_i + \beta_9 Bedrooms_i + \beta_{10}(Bedrooms_i)^2 + \beta_{11} Bathrooms_i + \beta_{12} Onestory_i + \beta_{13} Twostories_i + \beta_{14} Carshelter_i + \beta_{15} Fireplace_i + \beta_{16} Fence_i + \beta_{17} Deck_i + \beta_{18} Pool_i + \beta_{19} Brick_i + \beta_{20} Rural_i + \beta_{21}\text{distCBD}_i + \beta_{22}\text{Towers}_i + \beta_{23}\ln(Income_i) + \beta_{24}\ln(Black_i) + \beta_{25} Unemployment_i + \sum_{t=2008}^{2013} \tau_t Year_{ti} + \sum_{j=1}^{31} \delta_j Zipcode_{ji} + \varepsilon_i \quad (2)$$

where ln(*Price*) is the natural log of the property sales price; ln(*Distance*) is the natural log of the distance between a property and a wireless tower measured in

Table 2 Summary Statistics for Variables in Each of the Four Subsamples

	Sample 1[a] (0.00–0.72Km)		Sample 2[b] (0.72Km – 1.13Km)		Sample 3[c] (1.13Km – 1.88Km)		Sample 4[d] (1.88Km – 41Km)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Price	163,008.8	107,361.6	170,634.6	133,366.5	170,212.1	136,985.5	166,518.6	119,035.9
Distance	0.497	0.156	0.920	0.116	1.425	0.202	9.080	8.295
D*	4087	34.942	4256	33.874	4246	33.942	3804	36.341
V*	5759	8.257	3667	36.869	22	4.682	0	0
h_tower	53.920	20.199	53.436	19.845	56.434	19.090	72.803	18.778
Age	26.148	21.949	25.455	20.128	23.876	18.816	18.784	15.158
Bedrooms	3.269	0.629	3.322	0.634	3.312	0.735	3.238	0.695
Bathrooms	2.113	0.667	2.156	0.710	2.167	0.700	2.104	0.598
Onestory*	459	20.563	499	21.360	528	21.912	374	18.708
Twostories*	573	22.730	615	23.454	642	23.901	445	20.274
Car shelter*	3832	36.227	3858	36.106	3695	36.769	3638	36.968
Fireplace*	3806	36.338	4028	35.265	3910	35.866	3336	37.764
Fence*	2521	37.822	2576	37.910	2380	37.522	1898	35.774
Deck*	1222	31.077	1404	32.645	1369	32.363	1382	32.469
Pool*	51	7.110	44	6.608	47	6.828	47	6.828
Brick*	3856	36.121	4142	34.608	4179	34.379	4323	33.404
Rural*	787	26.091	601	23.217	460	20.584	796	26.216
distCBD	14.625	5.891	15.037	5.601	16.037	5.524	26.131	10.758
Towers	5.523	5.743	5.152	6.474	4.671	6.242	1.875	2.881
Income	68,790.18	23,488.16	69,418.33	22,687.17	67,058.06	20,669.78	61,806.5	10,912.01
Black	1214.973	910.131	1139.579	801.164	1217.888	835.001	710.429	543.371
Unemployment	9.408	6.073	8.900	5.640	8.827	5.130	9.692	4.678
N	5828		5827		5827		5827	

The table above presents the summary statistics for the variables within each of the four subsamples included in the analysis;

*binary variables (assumed to follow the binomial distribution): means and standard deviations for these variables are computed for the binomial distribution

[a] *Sample 1* is a subsample of properties selected within the first quartile of the minimum distance to the closest wireless tower (radius ≤ 0.72Km);

[b] *Sample 2* is a subsample of properties within the second quartile of the minimum distance to the closest wireless tower (0.72Km ≤ *distance* ≤ 1.13Km);

[c] *Sample 3* is a subsample of properties within the third quartile of the minimum distance to the closest wireless tower (1.13Km ≤ *distance* ≤ 1.88Km);

[d] *Sample 4* is a subsample of properties within the fourth quartile of the minimum distance to the closest wireless tower (1.88Km ≤ *distance* ≤ 41Km)

kilometers; *D* is a dummy variable that takes the value of one if the property was purchased after tower construction, and zero otherwise; *V* is a dummy variable that takes the value of one if the closest tower is visible from the property, and zero otherwise; *h_tower* is a continuous variable that measures the height of the closest tower above the ground in meters; *Age* is the age of a property in years; *Bedrooms* is the total number of bedrooms in a property; *Bathrooms* is the total number of

bathrooms and/or half-bathrooms in a property; *Onestory* and *Twostories* are binary variables equal to one if the property has one story or two stories above the ground level, respectively; *Carshelter, Fireplace, Fence, Deck, Pool* and *Brick* are dummy variables that take the value of one if a property has a car shelter, a fireplace, a fence around the house, a deck, a pool and/or the exterior construction is made of bricks respectively, and zero otherwise; *Rural* is a binary variable proxy for less dense populated areas that takes value one if the number of inhabitants per census tract is less than 2500, and zero otherwise; *dist*CBD is a continuous variable that measures the distance of each property from the Central Business District of Mobile, Alabama, the largest city in the study area; *Towers* is the number of wireless towers per census tract; ln*(Income)* is the natural log of the median income per census tract; ln*(Black)* is the natural log of the African-American population expressed in units per census tract; and, *Unemployment* is the unemployment rate per census tract expressed in percentage points. As in Jensen et al. (2014), we add the interaction between distance to (dis)amenities and tower visibility (V), which we label ln*(Distance)*·*V*. We use *Year*, property sale year dummy variables, to control for the impact of the subprime mortgage crisis. Finally, following Caudill et al. (2014), we include *Zipcode*, a set of dummy variables that attempt to capture additional unobserved neighborhood heterogeneities at a higher resolution than the census tract. Since we are interested in examining the price sensitivity of buyers of homes closest to a wireless tower, we follow Locke and Blomquist (2016) in stating the dependent variable being in logarithmic form. However, we also use the Akaike Information Criterion (AIC) to test several functional forms for hedonic price equations by varying the specification of the variables in the right-hand side of Eq. (2). We do so because by selecting the functional form having the lowest AIC value, we are able to produce a theoretical specification with the least possible information loss.

We calculate the average impact of a wireless tower on housing price by subtracting expected housing values before tower construction from expected housing values after tower construction, using the equation taking the following form:

$$\mathbb{E}\left[e^{Ln\left(\widehat{\text{price}}\right)}|D=1\right]-\mathbb{E}\left[e^{Ln\left(\widehat{\text{price}}\right)}|D=0\right]. \tag{3}$$

We also calculate the total social welfare impact as:

$$\Delta W=\sum_{i=1}^{N}\left[\left(e^{Ln\left(\widehat{\text{price}}\right)_i}|D_i=1\right)-\left(e^{Ln\left(\widehat{\text{price}}\right)_i}|D_i=0\right)\right]. \tag{4}$$

In addition, to examine the spatial price sensitivity of home buyers—the price elasticity of tower proximity—we partially differentiate Eq. (2) with respect to ln*(Distance)*, using the equation taking the following form:

$$\frac{\partial ln(Price)}{\partial ln(Distance)}=[\beta_1+\beta_3 D+\beta_5 V]\%. \tag{5}$$

We evaluate Eq. (5) as $D = 0$ and $V = 0$ (β_1) for sales occurring before tower construction, and $D = 1$ and $V = 1$ ($\beta_1 + \beta_3 + \beta_5$) for sales occurring after the visible tower construction. We additionally include $D = 1$ and $V = 0$ ($\beta_1 + \beta_3$), which accommodates comparison of price sensitivity of buyers of properties from which the closest tower is not visible.

In certain hedonic studies, it is appropriate to perform statistical tests for spatial correlation. This is a consequence of Tobler's first law of geography, which premises the interrelationship of all things, but that closer things are more related than distant things (Tobler 1970). We use spatial correlation tests to account for spatial processes in the dependent variable and estimation residuals. In matrix notation, such a model reads as:

$$\mathbf{y} = \rho\mathbf{W}\mathbf{y} + \mathbf{X}\boldsymbol{\beta} + (\mathbf{I}-\lambda\mathbf{W})^{-1}\mathbf{u} \tag{6}$$

where $\mathbf{y}$ is a n × 1 vector of property prices (previously defined); ρ is a scalar coefficient of spatial correlation; $\mathbf{W}$ is an n x n row, standardized spatial contiguity matrix based on the three closest neighbors as outlined by Caudill et al. (2014); $\mathbf{X}$ is an n × 63 (number of parameters of Eq. 1 including intercept) data matrix with first column vector $\mathbf{1_n}$; $\boldsymbol{\beta}$ is a 63 × 1 vector of parameters; $\mathbf{I}$ is an n x n identity matrix, λ is a scalar coefficient of residuals spatial correlation; and, $\mathbf{u}$ is an n × 1 vector of Gaussian innovations.

We estimate the spatial model by maximizing the log-likelihood function (MLL) with respect to the model's parameters, coefficients of spatial correlation (ρ and λ), and residual standard errors (σ) using the equation taking the following form:

$$\begin{aligned} LL(\boldsymbol{\beta},\rho,\lambda,\sigma|\mathbf{y}) = {} & -0.5\,n\,\ln(\pi) - 0.5\,n\,\ln\left(\sigma^2\right) \\ & + \left(\ln|\mathbf{I}-\lambda\mathbf{W}| + \ln|\mathbf{I}-\rho\mathbf{W}|\right) - \left[0.5\left(\sigma^{-2}\right)(\mathbf{u}')(\mathbf{u})\right] \end{aligned} \tag{7}$$

where n is the sample size, $\mathbf{u} = (\mathbf{I} - \lambda\mathbf{W})^{-1}(\mathbf{I} - \rho\mathbf{W})\mathbf{y} - (\mathbf{I} - \lambda\mathbf{W})^{-1}\mathbf{X}\boldsymbol{\beta}$; and, $\ln|\mathbf{I} - \lambda\mathbf{W}|$ and $\ln|\mathbf{I} - \rho\mathbf{W}|$ are the terms of the log-Jacobian transformation of $\mathbf{u}$ into $\mathbf{y}$. Assuming the same geographic processes for the dependent variable and residuals (same $\mathbf{W}$), the large sample Moran's I test for spatial correlation of the residuals is:

$$Z_I = [I - E(I)]/Var(I)^{0.5} \sim N(0,1) \tag{8}$$

where I is calculated from the residuals of Eq. (2) as $\boldsymbol{\varepsilon}'\mathbf{W}\boldsymbol{\varepsilon}/\ \boldsymbol{\varepsilon}'\boldsymbol{\varepsilon}$. Since this test is asymptotically normal, if $Z_I > 1.96$, with 95% confidence, we reject the null hypothesis that there is no spatial autocorrelation of the residuals.

The econometric models presented in Eqs. (6) and (7) are generic representations of a spatial model which includes both a spatial autoregressive model—model with dependent variable spatially autocorrelated: $\lambda = 0$, and a spatial error model—model with residuals spatially autocorrelated: $\rho = 0$. Following Anselin (1988), in practice, we select only one of the two models. Following the suggestion of Anselin et al. (1996), we use Robust Lagrangian Multiplier (RLM) tests (H_0: no spatial autocorrelation) of the residuals, using equations taking the following forms:

$$\mathrm{RLM}_\rho = \left[\boldsymbol{\varepsilon}'\mathbf{W}\mathbf{y}/\sigma^2 - \boldsymbol{\varepsilon}'\mathbf{W}\boldsymbol{\varepsilon}/\sigma^2\right]^2 / \left\{\sigma^2\left[(\mathbf{W}\mathbf{X}\boldsymbol{\beta})'\mathbf{M}(\mathbf{W}\mathbf{X}\boldsymbol{\beta}) + n\sigma^2\right] - n\right\} \tag{9}$$

$$\mathrm{RLM}_{\lambda} = \left[\varepsilon'\mathbf{W}\varepsilon/\sigma^2 - n\left(\sigma^2\left[(\mathbf{W}\mathbf{X}\boldsymbol{\beta})'\mathbf{M}(\mathbf{W}\mathbf{X}\boldsymbol{\beta}) + n\sigma^2\right]\right)^{-1}\varepsilon'\mathbf{W}\mathbf{y}/\sigma^2\right]^2 \Big/ n\left[1 - n\left(\sigma^2\left[(\mathbf{W}\mathbf{X}\boldsymbol{\beta})'\mathbf{M}(\mathbf{W}\mathbf{X}\boldsymbol{\beta}) + n\sigma^2\right]\right)\right]^{-1} \quad (10)$$

Both Eqs. (9) and (10) follow the χ^2 distribution with one degree of freedom and include $\mathbf{M} = \mathbf{I}\text{-}\mathbf{X}(\mathbf{X}'\mathbf{X})^{-1}\mathbf{X}$ as an idempotent projection matrix. Following Florax and De Graaff (2004), we select the model with the largest RLM statistics.

Results and Discussion

In this study, we conduct a pseudo-quantile analysis based on quartiles of the distance of each property from the closest tower. We refer to it as a pseudo-quantile analysis because we force the estimation of the conditional mean of the response variable on different values of the distance to the closest tower by subsampling the full data set for the four quartiles of this variable. The idea is to test our research hypothesis for properties located within different distance gradients from wireless towers. We do so by creating four spatial contiguity matrices (one for each sample). In Table 3, we report the results of both the Moran's *I* and RLM tests for spatial correlation across all four samples.

Table 3 Tests for Spatial Correlation

	Sample 1[a] (0.00–0.72Km)	Sample 2[b] (0.72Km – 1.13Km)	Sample 3[c] (1.13Km – 1.88Km)	Sample 4[d] (1.88Km – 41Km)
Statistic	Value	Value	Value	Value
Moran's *I*	0.22	0.21	0.20	0.18
Z_I	26.43***	24.81***	24.52***	21.53***
	(0.00)	(0.00)	(0.00)	(0.00)
RLM_{ρ}	436.83***	438.42***	490.10***	365.60***
	(0.00)	(0.00)	(0.00)	(0.00)
RLM_{λ}	0.041	0.24	0.31	0.49
	(0.84)	(0.62)	(0.58)	(0.48)

The table above presents the results of spatial correlation tests for all three samples;

H_0 No Spatial Autocorrelation, Z_I follows the standard normal distribution, RLM_{ρ}*and* RLM_{λ} follow the χ^2 distribution with one degree of freedom

Confidence intervals presented as ***99%; *p*-values in parentheses;

[a] *Sample 1* is a subsample of properties selected within the first quartile of the minimum distance to the closest wireless tower (radius ≤ 0.72Km);

[b] *Sample 2* is a subsample of properties within the second quartile of the minimum distance to the closest wireless tower (0.72Km ≤ *distance* ≤ 1.13Km);

[c] *Sample 3* is a subsample of properties within the third quartile of the minimum distance to the closest wireless tower (1.13Km ≤ *distance* ≤ 1.88Km);

[d] *Sample 4* is a subsample of properties within the fourth quartile of the minimum distance to the closest wireless tower (1.88Km ≤ *distance* ≤ 41Km)

Based on the Moran's *I* test results, with 99% confidence for each sample, we reject the null hypothesis that there is no spatial correlation of the residuals. Based on the results of the RLM test for dependent variable spatial correlation, we reject the null hypothesis of no spatial correlation for each subsample with 99% confidence. In contrast, based on the results of the RLM test for residual spatial correlation, we fail to reject the null hypothesis of no spatial correlation across all subsamples. Consequently, the spatial autoregressive model is the most appropriate econometric tool to conduct our analysis (Florax and De Graaff 2004). In Tables 4 and 5, we report the results of our analysis, comparing the OLS estimates (Table 4) of Eq. (2) to the MLL estimates (Table 5) of Eq. (6) with λ restricted to zero as a natural consequence of the Moran's *I* and RLM diagnostic tests discussed above.

Although biased, OLS estimates have good explanatory power across all four samples (the coefficient of determination ranges from 60% to 72%). However, comparison of the lower values of the AIC of the spatial autoregressive models to the corresponding OLS models confirms the hypothesis that the spatial autoregressive models represent the reality with minimum information loss. Therefore, this additional information supports our contention that the spatial autoregressive model is the most appropriate framework for statistical inference in our study.

In general, the spatial autoregressive model estimates have good statistical power and the expected coefficient signs across the four subsamples. Curiously, though, we find that the prices of properties purchased in 2009 after the U.S. financial crisis (compared to the baseline year 2007) are not statistically significant within 1.88 km from the closest tower (across the first three quartiles of the distance to the closest wireless tower). On the other hand, although the coefficients for dwelling age, unemployment rate, and the percentage increase in the African American population per census tract are all statistically significant, none seems to be economically significant in Mobile County. As expected, the numbers of bedrooms and bathrooms, as well as income are important predictors of property value in terms of economic magnitude. However, as in Locke and Blomquist (2016), it appears that the impact of these variables is relative to property location with respect to the towers. For example, an average household would be willing to pay between 7% to 8.5%[10] more than the average price of a property for an additional bedroom across the four samples while the household's willingness to pay for an additional bathroom ranges between 21% to 27% more than the average across the four subsamples. Moreover, commensurate with a 10% increase in median income per census tract, the property price increases range from between 18% to 21% for those properties located beyond 1.88 km from the closest tower (across Samples 2–4). However, it seems that the price of properties located within 0.72 km from the closest tower (Sample 1) is only negligibly sensitive to median income changes.

Turning our analysis to the impact of the wireless tower on the value of residential properties, our first assessment of the spatial autoregressive model estimate of *D* for the properties located within 0.72 km from the closest tower (Sample 1) shows a statistically

[10] There is a quadratic relationship between the logarithm of the property price and the number of bedrooms. We evaluate the semi-elasticities at the mean values of the number of bedrooms as reported in Table 2.

Table 4 Ordinary Least Squares

	Sample 1[a] (0.00–0.72Km)	Sample 2[b] (0.72Km – 1.13Km)	Sample 3[c] (1.13Km – 1.88Km)	Sample 4[d] (1.88Km – 41Km)
Constant	9.872*** (16.26)	6.362*** (12.2)	6.009*** (15.53)	6.311*** (11.59)
Age	-0.004*** (−12.86)	-0.006*** (−16.64)	-0.007*** (−18.07)	-0.008*** (−21.77)
Bedrooms	0.365*** (7.14)	0.417*** (9.76)	0.074*** (6.15)	0.115*** (9.07)
Bedrooms^2	-0.043*** (−5.75)	-0.041*** (−6.99)	-0.002*** (−4.03)	-0.003*** (−5.87)
Bathrooms	0.329*** (31.83)	0.277*** (30.66)	0.373*** (37.72)	0.278*** (26.44)
Onestory (0/1)	0.031* (1.65)	0.06*** (3.34)	0.069*** (3.89)	0.17*** (8.14)
Twostories (0/1)	0.058*** (3.28)	0.112*** (6.49)	0.092*** (5.4)	0.191*** (9.50)
Car shelter (0/1)	0.179*** (17.32)	0.187*** (17.77)	0.189*** (18.89)	0.239*** (23.03)
Fireplace (0/1)	0.203*** (17.87)	0.184*** (15.52)	0.158*** (13.74)	0.179*** (17.01)
Fence (0/1)	0.067*** (6.33)	0.019* (1.73)	0.024*** (2.26)	0.036*** (3.23)
Deck (0/1)	0.092*** (7.03)	0.065*** (5.02)	0.075*** (5.96)	0.093*** (7.15)
Pool (0/1)	0.067 (1.36)	-0.004 (−0.08)	-0.026 (−0.51)	0.118** (2.20)
Brick (0/1)	0.118*** (10.6)	0.098*** (8.48)	0.125*** (11.1)	0.096*** (7.56)
Rural (0/1)	-0.065*** (−3.07)	-0.119*** (−4.93)	-0.066** (−2.25)	0.216888 (5.35)
ln(distCBD)	-0.287*** (−10.06)	-0.103*** (−3.44)	-0.163*** (−4.67)	-0.075 (−1.33)
Towers	0.003*** (2.74)	0.003*** (3.63)	0.001 (0.49)	-0.002 (−0.75)
ln(Income)	0.155*** (5.58)	0.379*** (14.38)	0.478*** (16.27)	0.388*** (8.001)
ln(Black)	-0.066*** (−6.66)	-0.091*** (−9.41)	-0.065*** (−6.64)	-0.023** (−2.38)
Unemployment	-0.011*** (−7.44)	-0.004*** (−2.68)	0.009*** (5.27)	0.003*** (1.91)
Year 2008	0.075*** (3.95)	0.129*** (6.84)	0.111*** (5.8)	0.100*** (5.26)
Year 2009	0.009 (0.45)	0.011 (0.54)	0.036 (1.69)	0.019 (0.9)
Year 2010	-0.116*** (−5.02)	-0.087*** (−3.57)	-0.118*** (−5.29)	-0.062*** (−3.02)
Year 2011	-0.288*** (−12.54)	-0.297*** (−13.56)	-0.235*** (−10.48)	-0.185*** (−8.4)
Year 2012	-0.346*** (−15.52)	-0.304*** (−13.11)	-0.26*** (−11.13)	-0.21*** (−9.73)
Year 2013	-0.321*** (−14.58)	-0.331*** (−14.89)	-0.307*** (−13.93)	-0.249*** (−11.76)
ln(Distance)	-1.257*** (−2.95)	0.343 (1.41)	0.055 (0.49)	0.107*** (3.67)
D	-0.191*** (−4.82)	-0.011 (−0.1)	0.005 (0.05)	0.044 (1.200)
ln(Distance)·D	0.51*** (5.41)	0.048 (0.28)	0.009 (0.07)	-0.031* (−1.72)
V	-0.234 (−0.67)	0.123 (0.74)	-4.314 (−0.54)	NA[e]
ln(Distance)·V	0.829** (1.97)	-0.241 (−0.99)	5.59 (0.6)	NA[e]
H_tower	0.007 (1.43)	0.001 (0.62)	0.001 (1.62)	0.001*** (3.06)
H_tower·V	-0.006 (−1.14)	0.001** (2.37)	-0.006 (−0.75)	NA[e]
Adj. R^2	0.715	0.722	0.714	0.605

Table 4 (continued)

	Sample 1[a] (0.00–0.72Km)	Sample 2[b] (0.72Km – 1.13Km)	Sample 3[c] (1.13Km – 1.88Km)	Sample 4[d] (1.88Km – 41Km)
AIC	4257	4308	4157	4685
Deg. of Freedom	5773	5774	5774	5773
Sample Size	5828	5827	5827	5827

The table above presents results of the Ordinary Least Square estimates

Zipcode parameter estimates are not reported to save space (available upon request). Ten, twelve, twelve and eight *Zipcode* dummy variables were dropped from the analysis of *Samples 1, 2, 3* and *4,* respectively, because there were not properties within these zipcode areas

Confidence intervals presented as ***99%, **95%, and *90%; t-values in parentheses;

[a] *Sample 1* is a subsample of properties selected within the first quartile of the minimum distance to the closest wireless tower (radius ≤ 0.72Km);

[b] *Sample 2* is a subsample of properties within the second quartile of the minimum distance to the closest wireless tower (0.72Km ≤ *distance* ≤ 1.13Km);

[c] *Sample 3* is a subsample of properties within the third quartile of the minimum distance to the closest wireless tower (1.13Km ≤ *distance* ≤ 1.88Km);

[d] *Sample 4* is a subsample of properties within the fourth quartile of the minimum distance to the closest wireless tower (1.88Km ≤ *distance* ≤ 41Km);

[e] Visibility variable was dropped from the analysis because there were not visible towers in Sample 4

significant, negative correlation between property price and sales occurring after tower construction. The same estimate is statistically equally to zero for those properties located within 0.72 and 1.88 km from the closest tower (Samples 2 and 3). For properties that are far from the visibility range of a tower (Sample 4 includes properties located beyond 1.88 km), the correlation between property price and tower becomes positive and statistically different from zero. *V*, the visibility of the tower, is not statistically significant across the four samples. However, ln(*Distance*)·*V* is statistically significant at the 5% alpha level for properties that are located within 0.72 km from the closest tower (Sample 1). For these properties, we perform a log-likelihood ratio test for the joint significance of *V*, ln(*Distance*)·*V* and *h_tower*·*V*, following the χ^2 distribution with three degrees of freedom equal to the number of restrictions (three estimates simultaneously equal to zero). We reject the null hypothesis that these three estimates are jointly equal to zero (*p*-value =0.071, 90% confidence). Hence, we must include these parameters to model the relationship between housing price and tower proximity for those properties that are closer to the wireless tower (Sample 1). However, the opposite is true for properties located beyond 0.72 km as we fail to reject the null hypothesis when applying the same test to these properties. In addition, the number of wireless towers per census tract (*Towers*) and tower height (*h_tower*) have no significant impact on housing price across the four samples (statistically and economically).

To assess the average social welfare impact of wireless tower proximity on residential property values, we estimate the predicted housing value from sales occurring before and after tower construction using Eq. (3). In Table 6, we report the predicted

Table 5 Spatial Autoregressive Models

	Sample 1[a] (0.03Km – 0.72Km)	Sample 2[b] (0.72Km – 1.13Km)	Sample 3[c] (1.13Km – 1.88Km)	Sample 4[d] (1.88Km – 41Km)
Constant	6.404*** (11.417)	4.315*** (8.984)	4.109*** (11.697)	5.304*** (10.467)
Age	-0.004*** (−11.15)	-0.005*** (−14.236)	-0.005*** (−14.209)	-0.007*** (−19.002)
Bedrooms	0.358 *** (7.728)	0.353*** (9.063)	0.068*** (6.221)	0.104*** (8.902)
$Bedrooms^2$	-0.044 *** (−6.522)	-0.036*** (−6.755)	-0.002*** (−4.066)	-0.003*** (−5.887)
Bathrooms	0.256*** (26.873)	0.216*** (25.703)	0.279*** (29.698)	0.241*** (24.491)
Onestory (0/1)	0.019 (1.111)	0.039** (2.38)	0.042*** (2.591)	0.133*** (6.847)
Twostories (0/1)	0.043*** (2.673)	0.077*** (4.884)	0.063*** (4.125)	0.155*** (8.296)
Car shelter (0/1)	0.129*** (13.573)	0.136*** (14.052)	0.142*** (15.426)	0.191*** (19.629)
Fireplace (0/1)	0.142*** (13.643)	0.134*** (12.346)	0.117*** (11.156)	0.152*** (15.428)
Fence (0/1)	0.067*** (6.958)	0.026*** (2.621)	0.04*** (4.164)	0.048*** (4.579)
Deck (0/1)	0.08*** (6.74)	0.059*** (5.035)	0.081*** (7.096)	0.084*** (6.965)
Pool (0/1)	0.04 (0.898)	0.039 (0.807)	0.003 (0.071)	0.089** (1.786)
Brick (0/1)	0.078*** (7.743)	0.076*** (7.249)	0.101*** (9.888)	0.085*** (7.262)
Rural (0/1)	-0.015 (−0.791)	-0.064*** (−2.908)	-0.042 (−1.598)	0.153*** (4.063)
ln(distCBD)	-0.218*** (−8.416)	-0.089*** (−3.274)	-0.108*** (−3.421)	-0.084 (−1.612)
Towers	0.002*** (2.666)	0.002** (2.157)	0.001 (0.313)	-0.001 (−0.583)
ln(Income)	0.09*** (3.557)	0.207*** (8.428)	0.274*** (10.083)	0.179*** (3.908)
ln(Black)	-0.04*** (−4.359)	-0.059*** (−6.655)	-0.041*** (−4.66)	-0.02** (−2.165)
Unemployment	-0.007*** (−5.249)	-0.003** (−2.204)	0.006*** (3.715)	0.001 (0.779)
Year 2008	0.078*** (4.552)	0.128*** (7.504)	0.114*** (6.589)	0.108*** (6.124)
Year 2009	0.015 (0.843)	0.007 (0.374)	0.031 (1.615)	0.024** (1.209)
Year 2010	-0.117*** (−5.581)	-0.095*** (−4.276)	-0.12*** (−5.934)	-0.071*** (−3.714)
Year 2011	-0.300*** (−14.474)	-0.304*** (−15.253)	-0.236*** (−11.639)	-0.189*** (−9.255)
Year 2012	-0.340*** (−16.871)	-0.306*** (−14.514)	-0.296*** (−13.986)	-0.228*** (−11.364)
Year 2013	-0.328*** (−16.461)	-0.331*** (−16.388)	-0.322*** (−16.132)	-0.257*** (−13.074)
ln(Distance)	-1.167*** (−3.025)	0.274 (1.232)	0.059 (0.593)	0.09*** (3.318)
D	-0.12*** (−3.35)	-0.007 (−0.066)	0.003 (0.031)	0.06* (1.773)
ln(Distance)·D	0.332*** (3.886)	0.043 (0.27)	0.007 (0.062)	-0.039** (−2.298)
V	-0.453 (−1.432)	0.118 (0.782)	-2.747 (−0.377)	NA[e]
ln(Distance)·V	0.872** (2.291)	-0.193 (−0.869)	3.533 (0.421)	NA[e]
H_tower	0.001 (0.151)	0.001 (0.436)	0.001 (1.414)	0.001* (1.934)
H_tower·V	0.001 (0.02)	0.001 (1.394)	-0.003 (−0.451)	NA[e]
ρ	0.362*** (31.59)	0.349*** (30.53)	0.352*** (32.61)	0.310*** (26.89)

Table 5 (continued)

	Sample 1[a] (0.03Km – 0.72Km)	Sample 2[b] (0.72Km – 1.13Km)	Sample 3[c] (1.13Km – 1.88Km)	Sample 4[d] (1.88Km – 41Km)
σ	0.314*** (33.137)	0.317*** (32.781)	0.311*** (33.286)	0.334*** (31.215)
AIC	3347	3457	3243	4022
Deg. of Freedom	5571	5572	5572	5571
Sample Size	5828	5827	5827	5827

The table above presents results of the maximum log-likelihood estimations of the spatial autoregressive models

Zipcode parameter estimates are not reported to save space (available upon request). Ten, twelve, twelve and eight *Zipcode* dummy variables were dropped from the analysis of *Samples 1, 2, 3* and *4,* respectively, because there were not properties within these zipcode areas

Confidence intervals presented as ***99%, **95%, and *90%; z-values in parentheses;

[a] *Sample 1* is a subsample of properties selected within the first quartile of the minimum distance to the closest wireless tower (radius ≤ 0.72Km);

[b] *Sample 2* is a subsample of properties within the second quartile of the minimum distance to the closest wireless tower (0.72Km ≤ *distance* ≤ 1.13Km);

[c] *Sample 3* is a subsample of properties within the third quartile of the minimum distance to the closest wireless tower (1.13Km ≤ *distance* ≤ 1.88Km);

[d] *Sample 4* is a subsample of properties within the fourth quartile of the minimum distance to the closest wireless tower (1.88Km ≤ *distance* ≤ 41Km);

[e] Visibility variable was dropped from the analysis because there were not visible towers in Sample 4

sales value and t-test results of the sale price means for home sales occurring before and after tower construction.

For properties located within a 0.72-km radius of a wireless tower that are sold after tower construction (Sample 1), it appears there is indeed a tower-related negative price effect. We estimate the social cost tower impact as approximately $4132 (*p*-value =0.014), which corresponds to a *2.65% decrease* in property value. As expected, tower impacts are negligible for the stratum of housing units located beyond 0.72 km. Along the same line, we compute the impact of tower visibility for properties sold after tower construction as E($exp(\mathbf{X\beta}|\mathbf{D} = 1;\mathbf{V} = 1)$) - E($exp(\mathbf{X\beta}|\mathbf{D} = 1;\mathbf{V} = 0)$). Our calculations, summarized in Table 7, indicate a tower visible to properties within 0.72 km would effectively depreciate property values an average of 9.78%, equating to an average monetary loss of $17,037 (*p*-value =0.00). The impact of tower visibility would be statistically equal to zero for those properties beyond the 0.72 km band. In addition, we use Eq. (4) to gauge the overall social welfare resulting from wireless towers. Computing the sum of the difference between the predicted housing price before and after tower construction across the sample, we find a staggering aggregate value loss of $24.08[11] million dollars.

[11] This figure was calculated using equation (4). Let $\widehat{\boldsymbol{y}}_1$ be a column vector (5828 × 1) of predicted housing prices obtained by evaluating exp($\mathbf{X\beta}$) at the average values of all of the price predictors with D = 1 (sold after tower construction) and $\widehat{\boldsymbol{y}}_0$ the predicted housing prices counterpart with D = 0 (sold before tower construction). We define the change in welfare of each household *i* within Sample 1, as the element-by-element subtraction $\Delta W_i = \widehat{y}_{1i} - \widehat{y}_{0i}$. Finally, the aggregate welfare impact was obtained by taking the sum of the elements of the column vector $\Delta \boldsymbol{W}$, i.e., $\sum_{i=1}^{5,828} \Delta W_i = -24,081,385$.

Table 6 Social Welfare Analysis of Wireless Tower Impact on Home Values

	Expected Value		
	Before Tower	After Tower	Impact[a]
Sample 1[b]	155,911	151,779	-4132**
	(91,553)	(89,964)	(1681)
Sample 2[c]	161,865	164,068	2204
	(131,195)	(133,607)	(2453)
Sample 3[d]	162,249	163,485	1236
	(113,627)	(114,428)	(2113)
Sample 4[e]	159,752	161,770	2107
	(101,244)	(103,532)	(1897)

The table above presents the social welfare analysis of wireless tower impacts on home values

After tower = exp.(Xβ)|D = 1, *Before tower = exp.(Xβ)|D = 0*, *Impact = exp.(Xβ|D = 1) - exp.(Xβ|D = 0)*

**95% confidence interval; standard deviation in parentheses;

[a] standard error t-test in parentheses; t-test H_0: $E[exp(X\beta|D = 1)] = E[exp(X\beta|D = 0)]$;

[b] *Sample 1* is a subsample of properties selected within the first quartile of the minimum distance to the closest wireless tower (radius ≤ 0.72Km – sample size =5828);

[c] *Sample 2* is a subsample of properties within the second quartile of the minimum distance to the closest wireless tower (0.72Km ≤ *distance* ≤ 1.13Km – sample size =5827);

[d] *Sample 3* is a subsample of properties within the third quartile of the minimum distance to the closest wireless tower (1.13Km ≤ *distance* ≤ 1.88Km – sample size =5827);

[e] *Sample 4* is a subsample of properties within the fourth quartile of the minimum distance to the closest wireless tower (1.88Km ≤ *distance* ≤ 41Km – sample size =5827)

Because we find no evidence that towers impact prices of properties located beyond 0.72 km of a tower, we focus our analysis on the price sensitivity of homebuyers of properties located within 0.72 km of a tower. Earlier, we mention one of the main strengths of a spatial econometric analysis is it enables disentanglement of the direct and indirect effects of tower proximity on property values. This is because of a spatially correlated dependent variable—that the change in price of house i with respect to the distance to the closest tower of the neighbor's house j within the same sample is not zero (i.e. $\partial \ln(Price)_i/\partial \ln(Distance)_j \neq 0$ with $i \neq j$).

LeSage and Pace (2009) derive:

$$\left\{\begin{array}{lcl} Average\ \ Direct\ \ Impact & = & n^{-1}\ tr\left[(\boldsymbol{I}-\rho\mathbf{W})^{-1}\boldsymbol{I}\beta_{\mathrm{k}}\right] \\ Average\ \ Indirect\ \ Impact & = & n^{-1}\left\{1_n^{'}\left[(\boldsymbol{I}-\rho\mathbf{W})^{-1}\boldsymbol{I}\beta_{\mathrm{k}}\right]1_{\mathrm{n}}-tr\left[(\boldsymbol{I}-\rho\mathbf{W})^{-1}\boldsymbol{I}\beta_{\mathrm{k}}\right]\right\} \\ Average\ \ Total\ \ Impact & = & n^{-1}\ 1_n^{'}\ \left[(\boldsymbol{I}-\rho\mathbf{W})^{-1}\boldsymbol{I}\beta_{\mathrm{k}}\right]\ 1_{\mathrm{n}} \end{array}\right\} \tag{11}$$

for each predictor β_k with k = 1,2,..K. Therefore, we use Eq. (11) to decompose and calculate the average total impact of the wireless tower on property values within Sample 1 as reported in Table 8.

Table 7 Social Welfare Analysis of Wireless Tower Visibility on Home Values

	Expected Value		
	Non-visible Tower	Visible Tower	Impact[a]
Sample 1[b]	174,194	157,157	-17,037***
	(104,007)	(92,447)	(1823)
Sample 2[c]	161,120	164,370	3251
	(132,276)	(133,740)	(2464)
Sample 3[d]	163,113	163,335	222
	(114,055)	(114,297)	(2115)
Sample 4[e]	157,454	NA[f]	NA[f]
	(99,875)	(NA)[f]	(NA)[f]

The table above presents the social welfare analysis of the visibility impact of wireless tower on home values (after tower construction — $D = 1$)

Visible tower = $exp.(X\beta|D = 1;V = 1)$, *Non-visible tower* = $exp.(X\beta|D = 1;V = 0)$, *Impact* = $exp.(X\beta|D = 1;V = 1) - exp.(X\beta|D = 1;V = 0)$;

Confidence intervals presented as ***99%; standard deviation in parentheses;

[a] standard error t-test in parentheses; t-test H_0: $E[exp(X\beta|D = 1;V = 1)] = E[exp(X\beta|D = 1;V = 0)]$;

[b] *Sample 1* is a subsample of properties selected within the first quartile of the minimum distance to the closest wireless tower (radius ≤ 0.72Km – sample size =5828);

[c] *Sample 2* is a subsample of properties within the second quartile of the minimum distance to the closest wireless tower (0.72Km ≤ *distance* ≤ 1.13Km – sample size =5827);

[d] *Sample 3* is a subsample of properties within the third quartile of the minimum distance to the closest wireless tower (1.13Km ≤ *distance* ≤ 1.88Km – sample size =5827);

[e] *Sample 4* is a subsample of properties within the fourth quartile of the minimum distance to the closest wireless tower (1.88Km ≤ *distance* ≤ 41Km – sample size =5827);

[f] Visibility variable was dropped from the analysis because there were not visible towers in *Sample 4*

We then use Eq. (5) to assess the price sensitivity of buyers with respect to the distance to the closest visible and non-visible towers after their construction. It appears that if the tower is not visible, the property price decreases 8.7% for every 10% increase in distance to the closest tower. The spillover effect on property price due to the depreciation of the neighbor's property—the average indirect effect—is 4.41% of price decrease for every 10% increase in the distance to the closest tower. The total

Table 8 Decomposition of the Price Sensitivity of Home Buyers to Tower Proximity

	Average Direct Impact	Average Indirect Impact	Average Total Impact
ln(*Distance*)	-1.213	-0.616	-1.828
ln(*Distance*)·*D*	0.345	0.175	0.520
ln(*Distance*)·*V*	0.906	0.460	1.367

The table above presents the results of the sensitivity analysis designed to compare the price sensitivity of buyers of properties from which the closest tower is not visible

Average Direct Impact = $\partial \ln(\text{Price})_i/\partial \ln(\text{Distance})_i$, *Average Indirect Impact* = $\partial \ln(\text{Price})_i/\partial \ln(\text{Distance})_j$ with $i \neq j$, *Average Total Impact* = Average Direct Impact + Average Indirect Impact

depreciation is 13% for 10% increase in the distance. Therefore, it may well be that non-visible towers are a potential external benefit for properties located within 0.72 km of a tower. Although we cannot affirmatively explain this finding, our sense is it may be due to enhanced wireless coverage resulting in a stronger wireless signal.

It is noteworthy that only 69 of 5828 properties within 0.72 km of the closest tower are outside of the visibility range of a tower. In contrast, however, the 5759 homebuyers purchasing properties within 0.72 km of the closest tower that are within visible range of a tower are not particularly sensitive, on average, to the distance to the visible tower, despite their perceptions of a visible tower as a negative externality. In fact, housing prices appreciate approximately 0.4% for each 10% increase in the distance to the closest visible tower. The average indirect impact of towers on those buyers (price spillover due to neighbor's price movement) is approximately 0.2%. This is to say that buyers of properties located an average of 0.497 km (average minimum distance in Sample 1) to the closest tower are willing to pay a premium of approximately 0.6% of the average housing price for every 10% increase in the average distance from a tower (average total impact). Monetarily, this translates into a value of approximately $962 per 50 linear meters[12] of increase in distance from the closest tower.

One limitation of our study is that we cannot control for potential endogeneity associated with the sale date dummy variable (D). Even though homeowners could choose to buy or not to buy a property after tower construction, we have no information as to their motivations for buying. Ideally, a difference-in-differences study restricted to repeat sales of the same property occurring pre- and post-tower construction could potentially mitigate this source of bias. Unfortunately, within the entire sample of 23,309 housing sales there are only 42 repeat sales. A difference-in-differences approach based on a sample of 42 observations would clearly suffer from a micronumerosity problem with negative degrees of freedom (the number of parameters would exceed the sample size), and would, therefore, lack empirical viability.

Notwithstanding the slight potential for bias, our results are clear: consumers perceive visible wireless towers as economic externalities. Aggregate social costs are highly significant relative to those properties within a 0.72 Km radius of a tower. Additionally, we must also point out that our study does not assess intangible social benefits of wireless towers, such as high-speed internet access, emergency communications, and digital forensics enabling national security related wireless communication monitoring, all of which provide invaluable services to consumers, businesses, and institutions.

Conclusion

Truly, we currently live in the Age of Information. According to the International Communication Union of the United Nations, the number of wireless phone subscriptions totaled over 7 billion worldwide in 2015, with wireless coverage extending to 95% of the world's population (United Nations, International Communication Union 2015). U.S. wireless usage is no less astounding, as evidenced by the 1045% increase in

[12] We calculate a 10% increase in the average minimum distance for houses in *Sample 1* as 0.49 km · 0.1 ≈ 50 m. A 0.59% increase in the average housing price of *Sample 1* is $163,008.8 · 0.0059 ≈ $ 961.80.

wireless devise demand over the last 20 years (CTIA 2015). The future looks promising as well, with expectations that U.S. wireless industry employment will increase more than 31% from 2012 to 2017 (Pearce et al. 2013). Yet, even with the wireless industry poised for continued growth, it is unlikely it will be without consequences. Certainly, there are private benefits associated with the use of wireless service, yet there are costs as well. In this study, we examine one such cost: the impact of wireless towers on home values.

Although previous researchers have examined this issue, our study differs in two aspects. First, we address the econometric problem of spatial dependence that typically flaws hedonic price estimation analysis. We contend our empirical analyses are more efficient than those used in other studies, and as result, our results reveal greater consistency and reliability. Second, rather than rely solely on neighborhood-based property sales data, we test our hypothesis using recent property sales and current wireless tower locational data for an entire metropolitan statistical area,[13] which also happens to be one of the busiest port cities in the United States.[14]

The results of a series of spatial statistical tests developed by Anselin et al. (1996) suggest that a spatial autoregressive model is the most appropriate econometric approach to test our research hypothesis. We conduct a marginal sensitivity analysis for homes within different radii of distances to the closest visible and non-visible wireless towers, basing the distance bands on quartiles of the distance to the wireless tower. Our results reveal wireless tower capitalization only in the value of those properties that are within approximately 0.72 km of a tower. On average, the potential external cost of a wireless tower is approximately $4132 per residential property, which corresponds to a negative price effect of 2.65%. The negative price impact of 9.78% is much more severe for properties within visible range of a tower compared to those not within visible range of a tower. This negative impact vanishes as radii distances exceed 0.72 km. In aggregate, the social welfare cost for the properties in our sample located within 0.72 km amounts to an approximate loss of $24.08 million dollars of value.

U.S. federal law prohibits wireless siting denial if no alternative site is available (FCC 1996; Martin 1997). However, given the apparent social costs associated with negative price effects, local zoning and regulatory authorities should consider granting approvals that include impact-minimizing conditions. For example, wireless tower construction approvals could require development and maintenance of visual or vegetative buffer screening. Concurrently or alternatively, approvals could mandate camouflaging towers to look like trees or flagpoles. Other types of approval conditions could dictate attachment of communication antennae systems to existing structures such as buildings, street light poles, electric utility poles, water towers, billboards, or even sports stadium super-structures. Clearly, society is dependent on wireless communication, and obfuscating efforts to expand or improve coverage makes little sense. Arguably, however, authorities overseeing the process have definitive obligations, perhaps even fiduciary ones, to safeguard the interests and well-being of those whom they serve.

[13] The U.S. Census Bureau list of metropolitan statistical areas ranks Mobile County, Alabama at number 127. Data available at http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk.

[14] The Port of Mobile is home to the twelfth busiest port in the U.S., and ninth busiest port along the Gulf Coast, ranked by cargo tonnage handled as reported by the U.S. Department of Transportation, available at http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/national_transportation_statistics/html/table_01_57.html.

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FEATURES

The Effect of Distance to Cell Phone Towers on House Prices in Florida

by Sandy Bond, PhD

ABSTRACT

This article outlines the results of a study carried out in Florida in 2004 regarding the effect that cell phone tower proximity has on residential property prices. The study involved an analysis of residential property sales transaction data. Both GIS and multiple regression analysis in a hedonic framework were used to determine the effect of linear distance of homes to towers on residential property prices. The results of the research show that prices of properties decreased by just over 2%, on average, after a tower was built. This effect generally diminished with distance from the tower and was almost negligible after about 656 feet.

The siting of cellular phone transmitting antennas, their base stations, and the towers that support them (towers) is a public concern due to fears of potential health hazards from the electromagnetic fields that these devices emit. Negative media attention to the potential health hazards has only fueled the perception of uncertainty over the health effects. Other regularly voiced concerns about the siting of these towers are the unsightliness of the structures and fear of lowered property values. However, the extent to which such attitudes are reflected in lower property values affected by tower proximity is controversial.

This article outlines the results of a cell phone tower study carried out in Florida in 2004 to show the effect that distance to a tower has on residential property prices. It follows on from several New Zealand (NZ) studies conducted in 2003.[1] The first of the NZ studies examined residents' perceptions toward living near towers, while the most recent NZ study adopted GIS to measure the impact that distance to a tower has on residential property prices using multiple regression analysis in a hedonic pricing framework. The study presented in this article was conducted to determine if homeowners in the United States make price adjustments that are similar to those of NZ homeowners when buying properties near towers, and hence, whether the results can be generally applied.

The article commences with a brief literature review of the previous NZ studies for the readers' convenience. The next section describes the research data and methodology used. The results are then discussed. The final section provides a summary and conclusion.

1. Sandy Bond and Ko-Kang Wang, "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," *The Appraisal Journal* (Summer 2005): 256–277; S. G. Bond, and K. Beamish, "Cellular Phone Towers: Perceived Impact on Residents and Property Values," *Pacific Rim Property Research Journal* 11, no. 2 (2005): 158–177; and S. G. Bond, and J. Xue, "Cell Phone Tower Proximity Impacts on House Prices: A New Zealand Case Study" (European Real Estate Society and International Real Estate Society Conference, Dublin, Ireland, June 15–18, 2005).

Literature Review

Property Value Effects

First, an opinion survey by Bond and Beamish[2] was used to investigate the current perceptions of residents towards living near towers in the case study city of Christchurch, New Zealand, and how this proximity might affect property values. Second, a study by Bond and Wang[3] that analyzed property sales transactions using multiple regression analysis was conducted to test the results of the initial opinion survey. It did this by measuring the impact of proximity to towers on residential property prices in four case study areas. The Bond and Xue[4] study refined the previous transaction-based study by including a more accurate variable to account for distance to a tower.

The city of Christchurch was selected as the case study area for all the NZ studies due to the large amount of media attention this area had received in recent years relating to the siting of towers. Two prominent court cases over the siting of towers were the main cause for this attention.[5] Dr. Neil Cherry, a prominent and vocal local professor, brought negative attention to towers by regularly publishing the possible health hazards relating to these structures.[6] This media attention had an impact on the results of the studies outlined next.

The Opinion Survey

The Bond and Beamish opinion survey study included residents in ten suburbs: five case study areas (within 100 feet of a cell phone tower) and five control areas (over 0.6 of a mile from a cell phone tower). Eighty questionnaires[7] were distributed in each of the ten suburbs in Christchurch (i.e., 800 surveys were delivered in total). An overall response rate of 46% was achieved.

The survey study results were mixed, with responses from residents ranging from having no concerns to being very concerned about proximity to a tower. In both the case study and control areas, the impact of proximity to towers on future property values is the issue of greatest concern for respondents. If purchasing or renting a property near a tower, over one-third (38%) of the control group respondents would reduce the price of their property by more than 20%. The perceptions of the case study respondents were less negative, with one-third of them saying they would reduce price by only 1%–9%, and 24% would reduce price by between 10% and 19%.

Transaction-Based Market Study

The Bond and Wang market transaction-based regression study included 4283 property sales, in four suburbs, that occurred between 1986 and 2002 (approximately 1000 sales per suburb). The sales data from before a tower was built was compared to sales data after a tower had been built to determine any variance in price, after accounting for all the relevant independent variables.

Interestingly, the effect of a tower on price (a decrease of between 20.7% and 21%) was very similar in the two suburbs where the towers were built in 2000, after the negative media publicity given to towers following the two legal cases outlined above. In the other two suburbs, the results indicated a tower was either insignificant or increased prices by around 12%, where the towers had been built in 1994, prior to the media publicity.

The main limitation affecting this study was that there was no accurate proximity measure included in the model. A subsequent study was performed using GIS analysis to determine the impact that distance to a tower has on residential property prices. The results from that study are outlined next.

Proximity Impact Study

The Bond and Xue study conducted in 2004 involved analysis of the residential transaction data using the same hedonic framework as the previous Bond and Wang study. It also included the same data as the previous study, but added six suburbs to give a total of ten suburbs: five suburbs with towers located in them and five control suburbs without towers. In addition, the geographical (x, y) coordinates that relate

2. Bond and Beamish, "Cellular Phone Towers: Perceived Impact on Residents and Property Values."
3. Bond and Wang, "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods."
4. Bond and Xue, "Cell Phone Tower Proximity Impacts on House Prices: A New Zealand Case Study."
5. *McIntyre v. Christchurch City Council,* NZRMA 289 (1996), and *Shirley Primary School v. Telecom Mobile Communications Ltd.*, NZRMA 66 (1999).
6. For example see Neil Cherry, *Health Effects Associated with Mobil Base Stations in Communities: The Need for Health Studies*, Environmental Management and Design Division, Lincoln University (June 8, 2000); available at http://pages.britishlibrary.net/orange/cherryonbasestations.htm.
7. Approved by the University of Auckland Human Subjects Ethics Committee (reference 2002/185).

to each property's absolute location were included. A total of 9,514 geocoded property sales were used (approximately 1000 sales per suburb).

In terms of the effect that proximity to a tower has on price the overall results indicate that this is statistically significant and negative. Generally, the closer a property is to the tower, the greater the decrease in price. The effect of proximity to a tower reduces price by 15% on average. This effect is reduced with distance from the tower and is negligible after 1000 feet.

The study reported here, outlined next, adds to the growing body of evidence and knowledge from around the world on property value effects from cell phone towers.

Florida Market Study

The Data

Part of the selection process was to find case study areas where a tower had been built that had a sufficient number of property sales to provide statistically reliable and valid results. Sales were required both before and after the tower was built to study the effect of the existence the tower had on the surrounding property's sale prices.

Case study areas were selected using both GIS maps that showed the location of cellular phone towers, and sale price and descriptive data about each property located in Orange County. The maps and sales data were obtained from the Florida Geographic Data Library (FGDL).[8]

Approximately 60% of the towers located in Orange County were constructed between the years 1990 and 2000. Additionally, frequency distributions of properties sold during that period indicate that twenty of the towers have the greatest potential for impact on the price of residential properties, based on the greatest number of residential properties close to each tower. These twenty towers were selected to construct a data set for the study.

Parcel data recorded in the FGDL was collected from the Office of the Property Appraiser for Orange County, Florida.[9] Residential properties that sold between 1990 and 2000 (the years the towers were constructed) and that are closest to the twenty towers were selected. Areas close to Interstate 4 and limited access roads were avoided to ensure sale prices (i.e., home buyers' choices) were not affected by highway access or traffic noise variables. Similarly, properties south of Colonial Drive were avoided due to the lower socioeconomic nature of that location. The final areas were selected after site visits had been made to verify that each mapped tower existed, to confirm the location of the homes to the tower, and to ensure nonselected towers were not located near the homes that might impact on the study results. Overall, 5783 single-family, residential properties were selected from northeast Orange County (see the Location Map in the Appendix).

Variables

The study investigates the potential impact of proximity to a tower on the price of residential property, as indicated by the dependant variable *SALE_PRICE*.[10] The study controls for site and structural characteristics by assessing the impact of various independent variables. The independent data set was limited to those available in the data set and known to be related to property price, based on other well-tested models reported in the literature and from valuation theory. The independent variables selected include lot size in square feet (*LOT*), floor area of the dwelling in square feet (*SQFT*), age of the dwelling in years (*AGE*), the time of construction (*AFTER_TWR*), the closest distance of each home to the associated tower (*DISTANCE*), and the dwelling's absolute location is indicated by the Cartesian coordinates (*XCOORD*) and (*YCOORD*).[11]

The effect of construction of a tower on price is taken into account by the inclusion of the dummy, independent variable *AFTER_TWR*. By including *AFTER_TWR*, property prices prior to tower construction can be compared with prices after tower construction.[12] Frequency distributions indicate that

8. The FGDL is an assemblage of virtually every geographic data set for Florida that the GeoPlan Center of the University of Florida was able to obtain, this mostly from government sources, including the Federal Communications Commission.
9. As reported to the Florida Department of Revenue.
10. Model 1 and Model 2 estimate the log of the *SALE_PRICE*.
11. For further discussion of the significance of the absolute location in the form of {*x, y*} coordinates see Timothy J. Fik, David C. Ling, and Gordon F. Mulligan, "Modeling Spatial Variation in Housing Prices: A Variable Interaction Approach," *Real Estate Economics* 31 (Winter 2003): 647–670.
12. Dummy variables for each year of residential sales were also incorporated into both model specifications to control for the potential effects of time on the price of residential property.

among the residential properties sold between 1990 and 2000, approximately 80% of the residential properties were sold after tower construction.

Based on the parcel and tower data for Orange County, the mean sale price of single-family, residential property that sold between 1990 and 2000 is $113,830. The mean square footage is 1535 square feet, the mean lot size is 8525 square feet, and the mean age is 14 years. The mean distance from a residential property to a tower is 1813 feet.[13] Descriptive statistics for select variables are presented in Table 1.

Research Objectives and Methodology

The study hypothesis is that in areas where a tower is constructed, it will be possible to observe discounts made to the selling prices of homes located near these structures. Such a discount will be observed where buyers of homes close to the towers perceive them in negative terms due to, for example, the risk of adverse health, or aesthetic and property value effects.

The literature dealing specifically with the measurement of the impact of environmental hazards on residential sale prices (including proximity to transmission lines, landfill sites, and groundwater contamination) indicates the popularity of hedonic pricing models, as introduced by Court[14] and later Griliches[15] and further developed by Freeman[16] and Rosen.[17] The standard hedonic methodology was used to quantify the effect of cellular phone towers on sale prices of homes located near these. GIS was also adopted to aid the analysis of distance to the towers.

Model Specification

In hedonic housing models the linear and log-linear models are most popular. The linear model implies constant partial effects between house prices and housing characteristics, while the log-linear model allows for nonlinear price effects and is shown in the following equation:

$$\ln P_i = b_0 + b_1 X_{1,i} + b_2 X_{2i} + b_3 X_{3i} \ldots + b_n X_{n+1} + a_o D_o + \ldots + a_m D_m + e_{0\ldots}$$

where:

$\ln P_i$ = the natural logarithm of sale price

b_0 = the intercept

$b_1 \ldots b_n$; $a_o \ldots a_m$ = the model parameter to be estimated, i.e., the implicit unit prices for increments in the property characteristics

$X_1 \ldots X_n$ = the continuous characteristics, such as land area

$D_o \ldots D_m$ = the categorical (dummy) variables, such as whether the sale occurred before (0) or after (1) the tower was built

Sometimes the natural logarithm of land area and floor area is also used. The parameters are estimated by regressing property sales on the property characteristics and are interpreted as the households' implicit valuations of different property

Table 1 Descriptive Statistics for Selected Variables, Orange County, Florida

Variable	Mean	Std. Dev.	Min.	Max.
SALE_PRICE	113830.6	58816.68	45000	961500
SQFT	1535.367	503.8962	672	5428
LOT	8525.193	4363.28	1638	107732
AGE	13.92755	10.03648	0	35
XCOORD	664108.9	6130.238	640460	671089
YCOORD	511489.4	2422.946	506361	531096
DISTANCE	1813.077	725.5693	133	6620

Notes: n = 5783. Polynomial expansions of the independent variables, identified by the *VARIABLE*^{2} were included in the interactions in the two model specifications discussed in the methodology.

13. Initially, *HEIGHT* was also included among the explanatory variables. However, the *HEIGHT* variable provided no significant explanatory power.
14. A. T. Court, "Hedonic Price Indexes with Automotive Examples," in *The Dynamics of Automobile Demand* (New York: General Motors, 1939).
15. Zvi Griliches, ed., *Price Indexes and Quality Change* (Cambridge, Mass.: Harvard University Press, 1971).
16. A. Myrick Freeman, III, *The Benefits of Environmental Improvement: Theory and Practice* (Baltimore: Johns Hopkins University Press, 1979).
17. Sherwin Rosen, "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," *Journal of Political Economy* 82, no. 1 (Jan/Feb 1974): 34–55.

attributes. The null hypothesis states that the effect of being located near a tower does not explain any variation in property sale price.

To address the many difficulties in estimating the composite effects of externalities on property price an interactive approach is adopted.[18] To allow the composite effect of site, structure, and location attributes on the value of residential property to vary spatially, they are interacted with the Cartesian coordinates that are included in the model.[19]

Unless the hedonic pricing equation provides for interaction between aspatial and spatial characteristics, the effects of the explanatory variables on the dependant variable will likely be underestimated, misspecified, undervalued, or worse, overvalued. Including the Cartesian coordinates in the model is intended to increase the explanatory power of the estimated model and reduce the likelihood of model misspecification by allowing the explanatory variables to vary spatially and by removing the spatial dependence observed in the error terms of aspatial, noninteractive models.

Empirical Results

The model of choice is one that best represents the relationships between the variables, and has a small variance and unbiased parameters. Adhering to the methodology proposed by Fik, Ling, and Mulligan,[20] various empirical models were selected and progressively tested. The models were based on other well-tested hedonic housing price equations reported in the literature to derive a best-fit model.

To test the belief that the relationship between *SALE_PRICE* and other specific independent variables such as *SQFT*, *AGE*, and *DISTANCE* is not a linear function of *SALE_PRICE*, the variables were transformed to reflect the correct relationship. It was found that the best result was obtained from using the log of *SALE_PRICE* and the square of *SQFT*, *AGE*, and *DISTANCE*.

The methodology progresses from an interactive model specification, which controls for site and structural attributes of residential property as well as the effects of absolute location, to a model that incorporates the impact of explicit location to measure the effects of the proximity to towers (as indicated by *DISTANCE*) on the sale prices of residential property.

Preliminary tests of each model, proceeding from interactive aspatial and spatial estimates, were executed to identify an appropriate polynomial order, or a model that provided the greatest number of statistically significant coefficients and the highest adjusted R-squared value.[21] Like the study by Fik, Ling, and Mulligan, sensitivity analyses suggested the use of a fourth-order model, at most. Similarly, the following model specifications are estimated with a stepwise regression procedure to minimize the potential for model misspecification due to multicollinearity and to ensure that only the independent variables offering the greatest explanatory power are included in the second model. The study used Levene's test for equality of variances. The assumption of homoskedasticity, like the assumption of normality, has been satisfied.

Model 1 was utilized as a benchmark for the second model. The sale price (*SALE_PRICE*) is estimated using the following independent variables: lot size (*LOT*); square footage of the dwelling (*SQFT*); age of the dwelling in years (*AGE*); and the dwelling's absolute location (*XCOORD*) and (*YCOORD*). To investigate the effect of tower construction on the price of homes, the dummy variable (*AFTER_TWR*) was also included. Residential sale prices prior to tower construction (*AFTER_TWR* = 0) were compared to sale prices after tower construction (*AFTER_TWR* = 1). With the addition of the absolute location, Model 1 was used to provide a sound model specification, to maximize the explanatory value of the study and minimize the potential for misspecification in the estimated second model.

Model 2 includes distance-based measures indicating the property's explicit location, with respect to the closest tower. Both explicit distance and the distance squared were included. Model 2 integrated the base model (Model 1) with the distance from the tower to the property. The independent variable *DISTANCE* is introduced in the model and interacted

18. Externalities include influences external to the property such as school zoning, proximity to both amenities and disamenities, and the socioeconomic make-up of the resident population.
19. Model misspecifications could include inaccurate estimates of the regression coefficients, inflated standard errors of the regression coefficients, deflated partial *t*-tests for the regression coefficients, false nonsignificant *p*-values, and degradation of the model predictability.
20. Fik, Ling, and Mulligan.
21. Ibid., 633.

with the variables from Model 1. This model is used to assess the variation in sale price due to proximity to a tower.

Table 2 shows the development of a spatial and fully interactive model specification to estimate the effects of the proximity to towers on the price of residential property, according to Model 1, the base model.

In the semilogarithmic equation the interpretation of the dummy variable coefficients involves the use of the formula $100(e^{b_n}-1)$, where b_n is the dummy variable coefficient.[22] This formula derives the percentage effect on price of the presence of the factor represented by the dummy variable.

Results from Model 1 suggest that the price of residential properties sold after the construction of a tower increases by 1.47% (i.e., *AFTER_TWR* = 1.46E-02). Interactions with *AFTER_TWR* and other variables also suggest an increase in the price for single-family residential properties sold after tower construction. Among the control variables, *SQFT* increases price by 0.039% with each additional square foot of space (i.e., *SQFT* = 3.88E). *AGE* reduces price by 0.25% for each additional year of age. The *t*-statistics for the explanatory variables *SQFT*, *AGE, XCOORD,* and *YCOORD* suggest significant explanatory power within the specification (i.e., *SQFT* = 47, AGE^2 = 7, XCOORD = -7.105 and *YCOORD* = 6.799). Model 1 accounts for 82% of the variation in the *SALE_PRICE* (i.e., Adj. *R*-Squared = 0.8219987).

Model 2 introduces the independent variable *DISTANCE* to assess the variation in sale price due to the external effect of a tower. The Model 2 results are presented in Table 3; Table 4 provides a summary of the distance results.

The results clearly show that the price of residential property increases with the distance from a tower. The independent variable, *DISTANCE*, estimates a coefficient with a positive sign, which increases with increasing distance from the tower (i.e., *DISTANCE* = 5.69E-05). As distance from the tower increases by 10 feet, price of a residential property increases by 0.57%. Moreover, the *t*-statistic associated with the estimated coefficient indicates the significance of the explanatory power of this variable (i.e., *t*-statistic = 10.751).

DISTANCE presents significant interactions with the other independent variables. The *t*-statistics associated with these interactions provide strong evidence that the price of residential property, while highly associated with site and structural characteristics, may be significantly impacted by proximity to towers (i.e., *AFTER_TWR*DISTANCE* = 3.519; $DISTANCE^2$ = -12.258; *DISTANCE*AGE* = 4.829).

Further, although the estimated effect of the explanatory variable *AFTER_TWR* continues to suggest that the value of residential property increases with the distance from towers, the interactive nature of *AFTER_TWR* with $DISTANCE^2$ suggests that the effect of *AFTER_TWR* may vary due to varying distances from the tower. Indeed, the estimated coefficient for *AFTER_TWR* from Model 1 is diminished in Model 2 when the explicit, distance-based locational attribute is included in the model specification (i.e., Model 1, *AFTER_TWR* = 1.46E-02 (1.47%); Model 2, *AFTER_TWR* = 0.012722 (1.28%)).

Table 2 Model 1 Results

Variables	Est. Coefficient	Std. Error	Std. Coefficient	*t*-Stat	Significance
Constant	3.689244	0.257416		14.332	0.0000
AFTER_TWR	1.46E-02	5.08E-03	0.0353	2.867	0.0042
*AFTER_TWR*AGE*	5.99E-04	2.62E-04	0.0395	2.290	0.0221
*AFTER_TWR*LOT*	8.79E-07	2.91E-07	0.0272	3.018	0.0026
SQFT	3.88E-04	8.20E-06	1.2072	47.368	0.0000
$SQFT^2$	-3.02E-08	1.90E-09	-0.3779	-15.912	0.0000
*SQFT*AGE*	3.52E-07	1.78E-07	0.0429	1.982	0.0475
AGE	-2.81E-03	5.17E-04	-0.1739	-5.429	0.0000
AGE^2	7.12E-05	9.94E-06	0.1527	7.165	0.0000
XCOORD	-1.14E-06	1.61E-07	-0.0432	-7.105	0.0000
YCOORD	3.05E-06	4.48E-07	0.0456	6.799	0.0000

Notes: n = 5783. Adjusted R^2 = 0.8219987.

22. Robert Halvorsen and Raymond Palmquist, "The Interpretation of Dummy Variables in Semilogarithmic Equations," *American Economic Review* 70, no. 3 (June 1980): 474–475.

Table 3 Model 2 Results

Variable	Est. Coefficient	Std. Error	Std. Coefficient	*t*-Stat	Significance
Constant	3.097387	0.268028		11.556	0.0000
AFTER_TWR	0.012722	4.42E-03	0.0309	2.877	0.0040
*AFTER_TWR*AGE*					
*AFTER_TWR*LOT*	1.26E-06	2.86E-07	0.0389	4.400	0.0000
*AFTER_TWR*DISTANCE*^{2}	2.72E-09	7.73E-10	0.0550	3.519	0.0004
SQFT	4.01E-04	8.45E-06	1.2464	47.460	0.0000
SQFT^2	-3.04E-08	1.93E-09	-0.3797	-15.726	0.0000
*SQFT*AGE*					
AGE	-2.80E-03	3.95E-04	-0.1731	-7.077	0.0000
AGE^2	6.72E-05	9.70E-06	0.1442	6.931	0.0000
XCOORD	-1.61E-06	1.63E-07	-0.0610	-9.911	0.0000
YCOORD	4.70E-06	4.80E-07	0.0702	9.798	0.0000
DISTANCE	5.69E-05	5.29E-06	0.2548	10.751	0.0000
DISTANCE^2	-1.49E-08	1.22E-09	-0.2927	-12.258	0.0000
*DISTANCE*AGE*	6.20E-07	1.28E-07	0.0909	4.829	0.0000
*DISTANCE*SQFT*	-5.43E-09	2.71E-09	-0.0568	-2.002	0.0453

Notes: n = 5783. Adjusted R^2 = 0.8282641

Table 4 Summary of Model 2 Location Results

Variable	Estimated Coefficient (% Impact on Price)
DISTANCE	5.69E-05 (5.69-03%)
DISTANCE^2	-1.49E-08

Note: ADJ. R^2 = 0.8282641

Limitations

This study analyzed residential property sales from different but neighboring suburbs as an entire data set, i.e., the suburbs were grouped together and analyzed as a whole. The absolute location was included in the model to take into account composite externalities as well as to allow these and other independent variables in the model to vary spatially, and therefore preclude the need to analyse neighborhoods separately. However, it is possible that not all neighborhood differences were accounted for.

For example, when comparing these results to those from the NZ study by Bond and Xue, it appears the results from both studies based on an analysis of the whole data set were similar. Towers have a statistically significant, but minimal, effect on the prices of proximate properties. However, what the NZ study showed by analyzing the suburbs separately was that substantive differences exist in the effect that towers have on property prices between suburbs, since the distribution of the property sale prices is quite different in each. It is possible that if the current study had analyzed suburbs separately that similar differences would have been found.

Summary and Conclusions

This article presents the results of a study carried out in Florida in 2004. The study involved the analysis of market transaction data of single-family homes that sold in Orange County between 1990 and 2000 to investigate the effect on prices of property in close proximity to a tower. The results showed that while a tower has a statistically significant effect on prices of property located near a tower, this effect is minimal.

Each geographical location is unique. Residents' perceptions and assessments of risk vary according to a wide range of processes including psychological, social, institutional, and cultural. The results of this study may vary with the NZ results not only due to the differences in study design (for example, this study excluded an analysis at a neighborhood level), but also due to differences in the landscape. In New Zealand, there are fewer structures such as high voltage overhead transmission lines, cell phone towers, and billboards than there are in the United States. As a result, it is possible that U.S. residents simply have become accustomed to these features and so notice them less.

The value effects from towers may vary over time as market participants' perceptions change due to increased public awareness regarding the potential (or lack of) adverse health and other effects of living near a towers. Further research into factors that impact on the degree of negative reaction from residents living near these structures could provide useful insights that

help explain the effects on property price. Such factors might include, for example, the kinds of health and other risks residents associate with towers; the height, style, and appearance of the towers; how visible the towers are to residents and how they perceive such views; and the distance from the towers residents feel they have to be to be free of concerns.

As the results reported here are from a case study conducted in 2004 in a specific geographic area (Orange County, Florida) the results should not be generally applied. As Wolverton and Bottemiller explain,

> The limits on generalizations are a universal problem for real property sale data because analysis is constrained to properties that sell and sold properties are never a randomly drawn representative sample. Hence, generalizations must rely on the weight of evidence from numerous studies, samples, and locations.[23]

Thus, many similar studies in different geographic locations would need to be conducted to determine if the results are consistent across time and space. Such studies would need to be of similar design, however, to allow valid comparison between them. As suggested by Bond and Wang, the sharing of results from similar studies would aid in the development of a global database to assist appraisers in determining the perceived level of risk associated with towers and other similar structures from geographically and socioeconomically diverse areas.

Sandy Bond, PhD, MBS, DipBusAdmin, SPINZ, is a senior member of the Property Institute of New Zealand (PINZ) and a past president of the Pacific Rim Real Estate Society (PRRES). She was awarded the PRRES Achievement Award in 2002 and the New Zealand Institute of Valuers' Presidential Citation in 1997. Before commencing her academic career in 1991 she worked as an appraiser in both New Zealand and the United Kingdom.

Bond is currently a senior lecturer at Curtin University of Technology. Her doctoral research was on the assessment of stigma relating to remediated contaminated property. Her current areas of research interest include the valuation of contaminated land, the impact of cell phone towers and high voltage transmission lines on residential property values, and public sector asset valuation. She has published numerous articles in journals in New Zealand, Australia, Malaysia, the United Kingdom, and the United States, and was responsible for drafting the NZPI Practice Standard on the Valuation of Contaminated Sites. **Contact: dr_sandybond@yahoo.com**

Additional Reading

Christchurch City Council Web site at http://www.ccc.govt.nz/index.asp

Crecine, J. P., O. Davis, and J. E. Jackson. "Urban Property Markets: Some Empirical Results and Their Implications for Municipal Zoning." *Journal of Law and Economics* 10 (1967): 79–99.

Crone, Theodore M. "Elements of an Economic Justification for Municipal Zoning." *Journal of Urban Economics* 14 (September 1983): 168–183.

Fisher, Walter D. "Econometric Estimation with Spatial Dependence." *Regional and Urban Economics* 1, no. 1 (1971): 19–40.

Gillen, K., T. G. Thibodeau, and S. Wachter. "Anisotropic Autocorrelation in House Prices." *Journal of Real Estate Finance and Economics* 23, no. 1 (2001): 5–30.

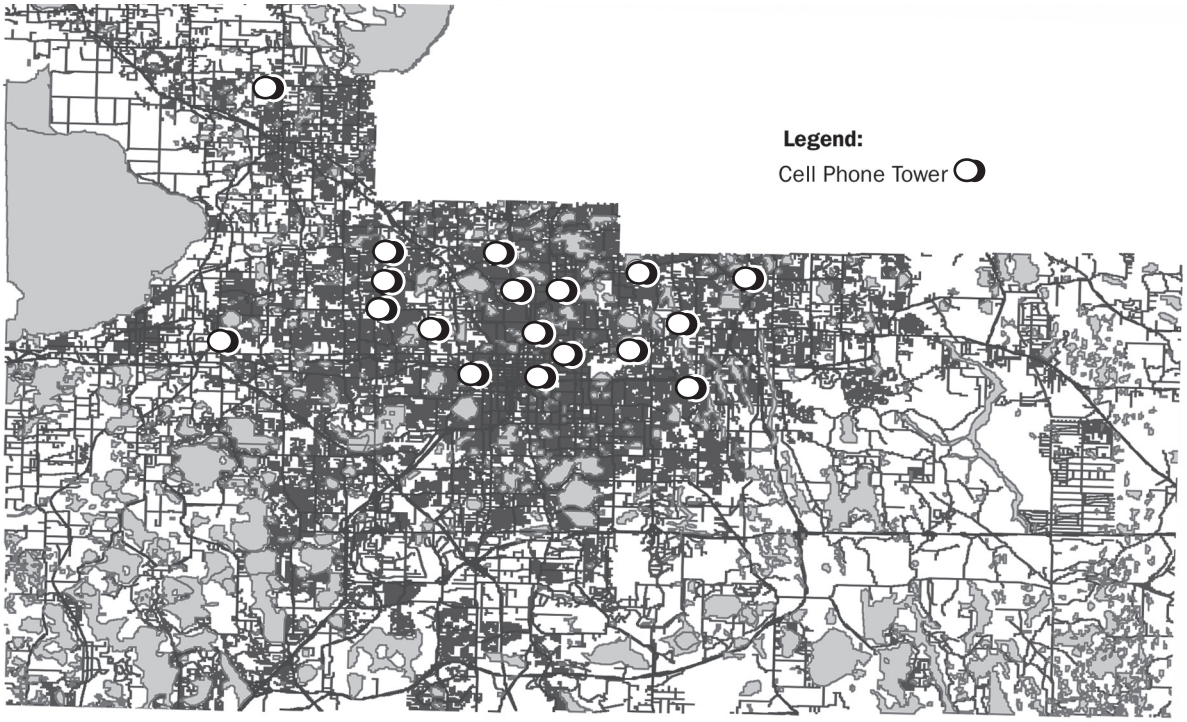
Kohlase, J. E. "The Impact of Toxic Waste Sites on Housing Values." *Journal of Urban Economics* 30, no. 1 (1991): 1–26.

Li, M. M., and H. J. Brown. "Micro-Neighborhood Externalities and Hedonic Housing Prices." *Land Economics* 56, no. 2 (1980): 125–141.

23. Marvin L. Wolverton and Steven C. Bottemiller, "Further Analysis of Transmission Line Impact on Residential Property Values," *The Appraisal Journal* (July 2003): 252.

Appendix

Location Map, Orange County, Florida



Orange County

Rebecca Watts	Doug and Sandy Clyde
277 Skyview Dr.	119 Skyridge Ln. (physical)
Mossyrock, WA 98564	Mossyrock, WA 98564
agbekkini@yahoo.com	dosanclyde@aol.com
832-419-2436	253-677-2126 and 253-691-8385

September 5, 2025

Lewis County Community Development
125 NW Chehalis Ave.
Chehalis, WA 98532

&

Preston, Pinkston, Planner
351 NW North St.
Chehalis, WA 98532

Petition Submission Opposing Type III Variance and Wireless Communication Facilities Permit at 262 Skyview Drive

Dear Lewis County Community Development,

We ask you to deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at the residential parcel located at 262 Skyview Drive, Mossyrock, WA 98564.

Attached to this letter is a petition signed by Lewis County residents and supporters who are concerned about the impact of this proposed development. We believe the cell tower would negatively affect the quiet, rural character, scenic beauty, and residential quality of life that define the Mossyrock area. Specific concerns include impacts on property values, visual disruption, use and maintenance of the private road, health and safety questions, and the overall character of the neighborhood.

This petition represents voices from both the immediate vicinity and the broader Lewis County community. We are opposed to the construction of cell towers in established residential neighborhoods.

We urge the department to include these signatures and comments as part of the public record during the application review process and any subsequent hearings.

Thank you for your attention to this matter and for considering community input during your review.

Please find enclosed, a petition signed by 276 residents or property owners of Mossyrock and/or Lewis County, WA.

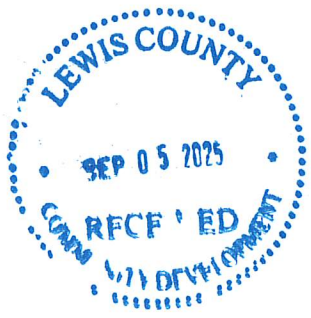
Additional Note: At the time of writing this letter there are currently 133 signatures on change.org: "Stop the 150-Foot Verizon Wireless Tower at 262 Skyview Drive, Mossyrock". There are also 4 comment under "Supporter Voices". Please consider this information and petition as part of our community's opposition to the wireless facility at 262 Skyview Dr.

Sincerely,
Rebecca Watts, Doug Clyde, and Sandy Clyde
(on behalf of concerned residents)

Rebecca Watts

Sandy Clyde
SANDY CLYDE

Doug Clyde
DOUG CLYDE



#27

(3)

Petition to: Lewis County Planning Division and Hearing Examiner

TOTAL SIGNATURES = 276

TOTAL PAGES = 31

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
Action Petitioned For	We respectfully urge Lewis County to deny permits WCF25-0002 and SEP25-0021 and to reject the siting of wireless towers in established residential areas — especially on private roads — without clear support from affected residents.

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Rebecca Watts		Mossyrock, 98564
Jovana Presnell		Silver Creek WA 98585
Megan Workman		MORTON WA 98356

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#_____

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
Action Petitioned For	We respectfully urge Lewis County to deny permits WCF25-0002 and SEP25-0021 and to reject the siting of wireless towers in established residential areas — especially on private roads — without clear support from affected residents.

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Sophia Peterson	Sophia Peterson	611 2nd St Steilacoom WA. 98388
Sara Fazzari	Sara Fazzari	119 Reinke Rd Centralia, wa 98531

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#1

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Donna Pennico	Donna Pennico	Mossyrock WA 98564
Samantha Pitman	Samantha Pitman	Mossyrock WA 98564
Adam Pitman		Mossyrock WA 98564
CORNELL MANN		Mossyrock WA 98564
MANUELA MANN	Manuela Mann	Mossyrock WA 98564
DAVID MANN		MOSSYROCK, WA 98564
Marina Jones		Mossyrock 98564
KATHERINE CARROLL		Mossyrock 98564
DONN CARROLL		Mossyrock 98564
CLAYTON GOOTGELD		296 SKYVIEW DR MOSSYROCK, WA 98564
DOUGLAS JENSEN		259 SKYVIEW DR MOSSYROCK WA 98564
Keith Corona		128 Williams Ridge Rd Mossyrock, WA 98564

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#_____

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Heather Corona	Heather Corona	Mossyrock 98564
JOHNNY L. GONZALES		MOSSYROCK 98564
Amanda Judd	Amanda Judd	Chehalis 98532
Katharine Lamarche-Baker	Katharine M Baker	Chehalis 98532
Valerie Wagner	Valerie Wagner	Centralia 98531
Kim Mathews	K Mathews	Silver Creek 98585

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#12

1

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
Action Petitioned For	We respectfully urge Lewis County to deny permits WCF25-0002 and SEP25-0021 and to reject the siting of wireless towers in established residential areas — especially on private roads — without clear support from affected residents.

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
JAMES GEDNEY	James Gedney	ONALASKA 98570

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#_____

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Paul Morris		~~Onalaska~~ Onalaska 98570
Keziah Morris	Keziah Morris	Onalaska 98570
Patricia Culp	Patricia Culp	Toledo 98591
Jadee Landry	Jadee Landry	Napavine Wa. 98532
Eileen Maggard	Eileen Maggard	Onalaska 98570
Linda CHAPMAN	Linda Chapman	Ethel 98542
Shadow Voce	Shadow Voce	Onalaska 98570
Angel Lynn Mitchell	Angel Lynn Mitchell	Onalaska 98570
Frank J Bangs	Frank J Bangs	Cinebar ~~98533~~ 98533
Albert Bangs	Albert J Bangs	Cinebar 98533
Jeannine Dunham	Jeannine Dunham	Cinebar 98533

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#_____

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Bryan Chapin		98356 Morton
Chris Rovito	C Rovito	98532
Robert J. Spahr	R. J. Spahr	98532
Vicki Haggerty	Vicki Haggerty	98564
Valerie A. Winer	Valerie A. Winer	98564
Susan Lindau	Susan Lindau	98533
Mark Elefritz	Mark Elefritz	98570
CARI ELEFRITZ	Carl Elefritz	98570
Steve Hasson	Steve Hasson	985-64 mossyrock
Gary Leeds	Gary Leeds	Cinebar 98533
Hannah Leeds	Hannah Leeds	Cinebar 98533

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#2 KJ

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
RANDALL SASSER	Randall Sasser	180 Mossyrock Rd West Mossyrock WA. 98564
Judy Peoples	Judy Peoples	451 Green Mt Rd Mossyrock WA 98564
Judy DeKlyen	Judy DeKlyen	148 Pleasant Hill Dr Silver Creek
Sharon Hecker	Sharon Hecker	489 Hatfield Rd.
Pamela Sinclair	P Sinclair	132 Deer Ridge Lane Mossyrock Wa. 98564
ROBERTA BENNETT	Roberta Bennett	152 BOYD RD MOSSYROCK 98564
Kathy Aust	Kathy Aust	121 Dillune Rd. Mossyrock, Wa 98564
Christel M. Nixon	Christel M. Nixon	129 Perkins Rd. Mossyrock, WA 98564

(8)

#_____

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Anni Evans	Anni Evans	30 Langabeer Rd Oakville wa. 98568
DEBRA DARNELL	Debra Darnell	252 BURNT RIDGE RD ONALASKA, WA 98570
Dori Lentz	Dori Lentz	2118 Spencer Rd Salkum 98582
RAYMOND FIEDLER		301 CHENEY LANE CENTRALIA WA 98531
Kay Christian	Kay Christian	611 Logan Hill Rd. Chehalis 98532
Ron Alter		
HARRY R. LARSEN	Harry R Larsen	P.O. Box 417 Mossyrock, WA 98564
Debra Ostrom		PO BOX 551 mossyrock WA

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Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Lydia Tevis	Lydia Tevis	Silver Creek 98585
Samantha Huang	Samantha Huang	mossyrock 98564
Jackie Blair		Morton, 98356
Allison Carmyer	Allison Carmyer	Mossyrock 98564
Kathryn Garbe	K. Garbe	Mossyrock 98564
Lia Kulp	Lia Kulp	Mossyrock 98564
Jody R Lovan	Jody R. Lovan	Mossyrock, WA 98564
	Darci Lauter	Mossyrock WA 98564
JANICE LAUTER	Janice Lauter	Mossy Rock WA 98564
RICHARD ZAWODSKY	Richard E Zawodsky	237 Riley Rd 98564
CLARENCE DUTTON	Clarence Dutton	314A Riley Rd 98564
Cindy Dutton	Cindy Dutton	Mossyrock 98564

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#1-KJ

(2)

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
Action Petitioned For	We respectfully urge Lewis County to deny permits WCF25-0002 and SEP25-0021 and to reject the siting of wireless towers in established residential areas — especially on private roads — without clear support from affected residents.

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Rebecca Vargas	Rebecca Vargas	658 Young Rd
Dear Conrad	DC Sandell	658 Mossyrock Ave

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8 KJ

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
ADRIANE BERG		Mossy Rock 98564
Trisha Berg		Mossy Rock 98564
Doug JARBOE		Mossy Rock 98564
Susan E. Engle	Susan E. Engle	Mossyrock 98564
Tamara. Maxwell	Tamara. Maxwell	Mossyrock 98564
Grant Walker		Mossyrock 98564
LACH POMEROY		Mossyrock 98564
Mary L. Stephens	Mary Lou Stephens	Mossyrock 98564
Dennis Cook	Dennis Cook	" "
Ben Doughty	Ben Doughty	Mossyrock 98564
Diane Craig	Diane Craig	Mossyrock 98564
Jack Craig		Mossyrock 98564
Verna Berndt	Verna Berndt	Mossyrock 98564
KEN Jackson	Kenneth Jackson	Mossy Rock 98564
ELLA JACKSON	Ella Jackson	Mossyrock 98564
Pam Brewer		Mossyrock 98564
Nathan Landers		Mossyrock 98564

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#7 KJ

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0024
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Tracy LaFayette		Mossyrock 98564
Barb LaFayette		Mossyrock 98564
Gerald Grimes		PO Box 364 98564
Kevin Fortney		Mossyrock 98564
Jennifer Fortney	Jennifer Fortney	mossyrock 98564
Gilbert V Aust		mossyrock 98564
FRANK HOLLIS		222 SKYVIEW DR. MOSSYROCK 98564
FRANK DOLL		274 winston CK MOSSYROCK
Elizabeth Masseth		100 Island view Mossyrock wa
Barbara Gehrkens		100 Cianni gan Hill Silver Creek WA 98585
Jerald Workman		193 Harmony Ln Silver Creek
Tara Tienhaara		114 Bobcat Lane Mossyrock, WA 98564
Ashley Shead		mossyrock wa 98564
James P. Sawyer		Morton, WA.
Joanne Plant	Joanne Plant	Silver Creek
Brian McFadden		156 Damron Rd mossyrock 98564
Dawn McFadden		156 Damron Rd Mossyrock, WA 98564

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#9 Kg

LEWIS COUNTY SEP 05 2025 COMMUNITY DEVELOPMENT

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0003
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Tom Schwabe	Tom Schwabe	1124 S.R. 122 SILVER CREEK
Joseph Blum	Joseph Blum	Mossyrock 98564
Ray H Myers	Ray H Myers	SILVER CREEK WA 98585
Tammy Bradley	Tammy Bradley	Mossyrock WA 98564
Kyler Huang	K Huang	Mossyrock 98564
Pamela Myers	Pamela Myers	Silver Creek 98585
Heidi Mitchell	Heidi Mitchell	Silver Creek, 98585
Jared Barge		Silver Creek 98564
Johanna Workman	Johanna Workman	Silver Creek 98585
Jenny Smith	Jenny Smith	Mossyrock 98564
Kristi Gerard	Kristi Gerard	Chehalis WA 98532
Carol Ekdahl	CAROL EKDAHL	mossyrock, WA 98564
Linda Jolly	Linda Jolly	
Gary Jolly	Mary Jolly	
STEVE BIRLEY	Steve C Birley	CHEHALIS
Buddy Rose	Buddy Rose	chehalis
Barbara Lovelady	Barbara Lovelady	Mossyrock

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LEWIS COUNTY
SEP 05 2025
RECEIVED
COMMUNITY DEVELOPMENT

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
Action Petitioned For	We respectfully urge Lewis County to deny permits WCF25-0002 and SEP25-0021 and to reject the siting of wireless towers in established residential areas — especially on private roads — without clear support from affected residents.

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Jennifer Derrick	Jderreick	Cinebar, WA 98533
Danielle Greis	Danielle Greis	Cinebar WA 98533
Georgia Weigant	Georgia Weigant	137 E State St.
NICOLE Wood	Nicole Wood	107 John St. 98564
JASON WILSON		S. Lucia Creek WA 98585
MARGARITA JARA		181 Swigert rd. Mossyrock, WA 98564.
Rocky Lockwood		mossyrock 98564
Phylicia Fisher		112 Hope St.
DaCoda Reevis		112 Hope St.
Christina Darnell		Damron, WA Mossyrock
Haley Reynolds		Onalaska, WA 98570

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Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Mark Riley		Salkum, 98582
Donna Sienkiewicz		Mossyrock 98564
James Sienkiewicz		Mossyrock 98564
Ben Stark		Mossyrock 98564

LEWIS COUNTY
SEP 05 2025
RECEIVED
COMMUNITY DEVELOPMENT

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Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Thomas Meade	Thom T Meade	282 Coleman Rd Mossyrock
Janet Meade	Janet E Meade	282 Coleman Rd Mossyrock
Jimmie Hanson	Jimmie T Hanson	129 Morris Rd Randle, WA
Steven Melis	Steven Melis	Morton, WA.
Marcia Manley	Marcia Manley	113 Jarvis Rd Mossyrock WA
Ricky Jordan	Ricky Jordan	187 High Meadow DR Mossyrock, wa.
George Schaefer	George J. Schaefer	927 Silverbrook Rd Randle, WA 98377-9220
TIM MORRIS	Tim Morris	122-10 JERRELLS Rd MOSSYROCK, WA, 98564

LEWIS COUNTY
SEP 05 2025
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5

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Justyn Workman		333 7th St Morton WA 98356
Kylee Kreidler		135 Cheif Kiana Rd Silver Creek WA 98585
Annee Hilliard		Mossyrock, 98564
Sophia Stajduhar		Mossyrock, 98564
Elizabeth Morgan		119 Davison Rd Morton, WA 98356

LEWIS COUNTY
SEP 05 2025
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#_____

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 / SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Charlene Sodorff	Charlene Sodorff	Mossyrock 98564
Carla Boshart	Carla Boshart	Mossyrock 98564
Louise CHARTRE	Louise Charey	Cent. 98530
Velvet Alder	Velvet Alder	Mossyrock 98564
Pamela Sinclair	Pamela Sinclair	Mossyrock 98564
Caroline Anderson	Caroline Anderson	Mossyrock 98564

LEWIS COUNTY
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COMMUNITY DEVELOPMENT

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pages 1 - 19 = 161 signatures.

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LEWIS COUNTY
SEP 05 2025
RECEIVED
COMMUNITY DEVELOPMENT

#_____

Petition to: Lewis County Planning Division and Hearing Examiner

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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Brenda Vincent	Brenda Vincent	Mossyrock, WA 116 Del Ray Rd 98564
EVA LINDGREN		158 DEL RAY RD MOSSYROCK, WA 98564
Coleen Sewright	Coleen Sewright	176 Valley View Dr. Mossyrock WA 98564
ROGER SEWRIGHT	Roger A. Sewright	176 VALLEY VIEW DR. MOSSYROCK WA 98564
ALVAN WILLIAMS	Al Williams	158 DEL RAY RD, MOSSYROCK, WA, 98564.
Amy Morehouse	Amy Morehouse	157 DEL RAY ROAD MOSSYROCK, WA. 98564
Kirsten Spears	Kirsten Spears	143 Del Ray MOSSYROCK 98564
Scott Vincent	Scott Vincent	116 Del Ray rd. Mossyrock, Wa 98564
Kris Wright	Kris Wright	106 Valley View dr MOSSYROCK WA 98564
David Wright	David W	106 Valley View Dr 98564
Bill Goble	Bill Goble	110 Valley View dr. 98564
JUDY VEITENHEIMER	Judy Veitenheimer	121 Valley View Dr Mossyrock WA 98564

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#_____

Jami Goble	Jami Goble	110 Valley View Dr Mossyrock 98564

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
JOE LOGALBO	Joe LoGalbo	106 Del Ray Rd Mossyrock
Patty Short	Patty Short	124 Del Ray Rd Mossyrock, Wa 98564
Pamela LOGALBO	Pamela LoGalbo	106 DEL Ray Rd, Mossyrock, WA 98564

LEWIS COUNTY
SEP 05 2025
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COMMUNITY DEVELOPMENT

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Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
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Printed Name	Signature	Address City / ZIP (Full Address Optional)
SANDRA CLYDE	Sandra Clyde	POB 756 Mossyrock 119 Skyridge ~~Ln~~ WA 98564
Doug CLYDE	Doug Clyde	P.O. Box 756 Mossyrock 119 SKYRIDGE Ln. 98564
JAY HENDERSON	Jay Henderson	Box 125 Morton, WA 98356
Mark Chandler	Mark Chandler	Box 702 Mossyrock, WA 98564
Julie Cole	Julie Cole	PO Box 306 Mossyrock, WA 98564
Kristi Pickering	Kristi Pickering	Mossyrock, WA 98564
Katie Fitzhugh	Katie Fitzhugh	105 Bowen Mossyrock, WA 98564
Rebecca Brooks	Rebecca M Brooks	122 Terrells Rd, Mossyrock
Krystal Schwartz	Krystal Schwartz	162 Steelhead Dr Silver Creek 98
Haylee Guzman	Haylee Guzman	196 Mossyrock Rd W
Taylor Knoll	Taylor Knoll	309 Camden Wy 98532
Sadie Firth	Sadie Firth	1536 Godfrey Rd 98564

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LEWIS COUNTY
SEP 05 2025
RECEIVED
COMMUNITY DEVELOPMENT

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Kari Hessman	Kari Hessman	Salkum, WA 98582
Trista Courmyer	TC	Salkum WA 98582
Charlene Chandler	Charlene Chandler	Silver Creek 98564
Melanie Hadaller	Melanie Hadaller	Mossyrock, WA 98564
Megan Walker	Megan Walker	349 Larson rd Silver Creek
Misty Ball	Misty Ball	58 TYCE LN Mossyrock WA 98564
Jenny Brockway	Jenny Brockway	1508 St. route 122 Silver Creek WA
Judd Hankins	Judd Hankins	Mossyrock, WA
Kelsie Thomas	Kelsie Thomas	Cinebar, WA
Hunter Thomas	Hunter Thomas	388 Cinebar Wa
Dan Hall	Dan Hall	193A Skyview Dr.
Cheri Hall	Cheri Hall	193A Skyview Dr.
Steve Olsen	Steve Olsen	255 Skyview Dr.
Mike Herron	Mike Herron	137 Zola Dr E
Virginia Herron	Virginia Herron	137 Zola Dr E
Ralph K. Eck	Ralph K Eck	126 E. Zola Dr.
Juli Morgenstern	Juli Morgenstern	518 Baker Dr.

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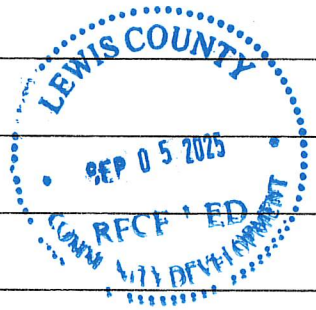
#_____

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 SEP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Jennifer Adams		122 Sawmill lane Onalaska WA 98570
Melissa Comer	Melissa Comer	262 Mossyrock Rd W #8 Mossyrock WA 98564
Chris Hermann		161 Ryan RD Mossyrock, WA 98564
Jolean Brockway	Jolean Brockway	1508 Sr 122 Silver Creek wa. 98585
Lynne Olmos		873 Lucas Creek Rd Chehalis 98532
Crystal West	Crystal West	157 High Meadow Dr. Mossyrock, WA 98564



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Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Robert DeGoede	Robert DeGoede	284 DeGoede Dr Mossyrock WA 98564
Fernando Cuglievan		158 Breeze Ln Mossyrock WA 98564
Leila Cuglievan	Leila E. Cuglievan	158 Breezy Ln Mossyrock, WA 98564
Chado Nolan		138 Breezy Lane Mossyrock, WA 98564
Carey Nolan	Carey Nolan	138 Breezy Lane Mossyrock, WA 98564
Ida Klein	Ida Klein	238 Coleman Rd Mossyrock
Dave Klein	Dave Klein	238 Coleman Rd Mossyrock
Peter Stadeli		233 Coleman Rd Mossy Rock WA
Robin Stadeli	Robin Stadeli	233 Coleman Rd. Mossyrock WA
Samantha DeGoede	Samantha DeGoede	297 DeGoede Dr. Mossyrock, WA 98564
Alexander DeGoede	Alexander DeGoede	297 DeGoede Dr Mossyrock WA 98564
Simon Hoisington		245 DeGoede Dr Mossyrock WA 98564

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LEWIS COUNTY
SEP 05 2025
RECEIVED
COMMUNITY DEVELOPMENT

Petition to Lewis County Planning Division — Oppose Permit WCF25-0002 SHP25-0021
See attached summary and action requested (Page 1).

NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Troy Wellington	Troy Wellington	183 Breezy Lane Mossyrock, WA 98564
Liz Wellington	Liz Wellington	183 Breezy Ln Mossyrock WA 98564
GEORGE BOYKO	George Boyko	287 COLEMAN ROAD MOSSYROCK, WA 98564
Leandra Boyko	Leandra Boyko	287 COLEMAN RD MOSSYROCK, WA 98564
Stephen J Chick	Stephen J Chick	115 Bobcat Lane Mossyrock, WA 98564
Francine L. Chick	Francine L Chick	115 Bobcat Lane Mossyrock WA 98564
Isabel Hovinghoff	Isabel Hovinghoff	243 Degeode Dr Mossyrock WA 98564
Debra S. DeGoede	Debra S. DeGoede	182 DeGoede Dr. Mossyrock WA 98564
JACK W DEGOEDE	Jack W DeGoede	182 DEGOEDE DR MOSSYROCK, WA 98564
Mary DeGoede	Mary DeGoede	3913 Hwy 12 Unit 10 Mossyrock, WA 98564
Henry Frame	Henry Frame	184 Breezy Ln Mossyrock, WA 98564
Gabrielle Taheri	Gabrielle Taheri	146 Breezy Lane Mossyrock, WA 98564
Mohammad Taheri	Mohammad Taheri	146 Breezy Ln. Mossyrock, WA 98564
Mary Marrah	Mary Marrah	395 Burley Rd Mossyrock WA
Robert Williams	Robert Williams	395 Burley Rd Mossyrock

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#_____

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Jill Gonzales	Jill M. Gonzales	mossyrock, 98564
Brian Hart		mossyrock, 98564
Elizabeth Hart	Elizabeth Hart	mossyrock, 98564
Kelsey Bisconer		Randle, 98377

LEWIS COUNTY
SEP 05 2025
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#_____

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

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Printed Name	Signature	Address City / ZIP (Full Address Optional)
Shawn Ross	Shawn Ross	Silver Creek 98585
Eileen Hoffman	Eileen Hoffman	Silver Creek 98585
BRIAN J MCGARRAH	Brian J McGarrah	Silver Creek 98585
Laurie North	Laurie North	Silver Creek 98585
GERRY NORTH	Gerry North	SILVER CREEK 98585
Skyler Redding	Skyler Redding	Silver Creek 98585
Savannah Redding	Savannah Redding	Silver Creek 98585
Ed Rost	Ed Rost	Silver Creek 98585

LEWIS COUNTY SEP 05 2025 RECEIVED COMMUNITY DEVELOPMENT

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Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

Petition Summary and Background	We, the undersigned residents of Mossyrock and greater Lewis County, oppose the construction of a 150-foot Verizon wireless tower proposed for 262 Skyview Drive in Mossyrock. The site is located on a tall hill in a quiet, residential community, along a narrow, privately owned and maintained one-lane road, and would be visible for miles in all directions. This proposed development poses serious concerns regarding road maintenance, property values, health, safety, aesthetics, and neighborhood character.
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NOTE: This petition is open to residents or property owners of Mossyrock and Lewis County, WA only.

Printed Name	Signature	Address City / ZIP (Full Address Optional)
Dale Tongue	Dale Tongue	Mossyrock 98564
Carol Pisano	Carol Pisano	118 Schoonover Mossyrock 98564
Lexi Duryea	Lexi Duryea	158 workmen rd unit C mossyrock
Tricia Hundley	Tricia M Hundley	Onalaska, WA 98570
Brian M. Welch	Brian M Welch	Silver Creek 98585 [redacted]
Kayla Furman	Kayla Furman	Mossyrock 98564
Cody Eitemiller	Cody Eitemiller	Mossyrock 98564
Jolena Furman	Jolena Furman	Morton 98356
Kacy Furman	Kacy Furman	Morton 98356
Don Hundley	Don Hundley	[redacted] Onalaska 98570
Gene Reynolds	Gene Reynolds	Mossyrock 98564

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(10)

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

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Printed Name	Signature	Address City / ZIP (Full Address Optional)
BERNIE Etchebarren		Cinebar, WA.
Kelly Burley	Kelly Burley	Mossyrock
Janice Greene	Janice Greene	Mossyrock
Tessa Schwartz		Mossyrock
Donna Bangs	Donna Bangs	Winlock
Jessie Pickering		Mossyrock
Britney Brown		Mossyrock
Joseph Brown		Mossyrock
Wayne Russell	Wayne Russell	Mossyrock
Jenny Lucas	Jenny Lucas	Salkum

LEWIS COUNTY SEP 05 2025 RECEIVED COMMUNITY DEVELOPMENT

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#_____

Petition to: Lewis County Planning Division and Hearing Examiner

Deny permit applications WCF25-0002 and SEP25-0021 for the construction of a wireless communication facility at 262 Skyview Drive, Mossyrock, WA.

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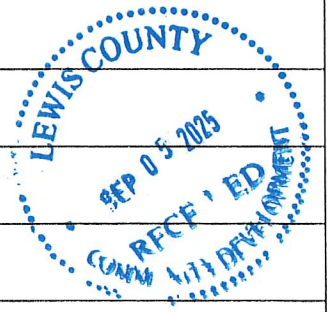
Printed Name	Signature	Address City / ZIP (Full Address Optional)
PEGGY SCHWARTZ	Peggy Schwartz	MOSSYROCK 98564
Rick Schwartz	Rick Schwartz	Mossyrock 98564
James B Cashman III	James B Cashman III	Mossyrock 98564
Brad Schwartz	Brad Schwartz	Mossyrock 98564
Chris Samuelson	Chris Samuelson	Mossyrock 98564



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pages 20-31 = 115 signatures.

Thursday, August 28, 2025

Mr. Pinkston,

Below you will find a list of comments on the application package for Permit WCF25-0002, SEP25-0021. I have also attached a PDF file with comments shown so you may see them in context. Please confirm receipt of these comments at your earliest convenience.

Generally, it is my impression that Harmoni Towers (Project Proponent) rushed through the application process and is seeking a simple and quick approval to move forward. In some areas, they have failed to provide sufficient information, and in other areas, they directly contradict information already provided.

My family and I have recently moved into the residential area, and we are neighbors to this proposed project. We and numerous others do not want our beautiful and quiet residential area to be burdened with an unsightly commercial facility. To that end, please see my following comments:

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Access/Circulation - Access to the site needs to be described from Birley Road. Skyview Drive is a private road, and the project proponent will be required to adhere to the access easement which does not allow for any vegetation clearing or trimming. Additionally, the easement only allows for access over an approximate 10 foot wide existing road. The Project Proponent will need to get approval from neighboring property owners to conduct any activity other than driving along the existing road. Although they may be minimal, there are traffic impacts. However, in the proposed location, those minimal impacts are increased due to the one-way road. Project Proponent will need to get approval from neighboring property owners to use their driveways as pull-outs to allow traffic to pass.

Section V - The project proponent did not address 15.50.010(2) which states the purpose of the Chapter is to "encourage the location of support towers and antenna arrays in *nonresidential* and nonschool zones"(emphasis added)

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Response to 15.50.025(1)(e) - This statement is slightly misleading. It is more accurate to state that this is the LEAST preferable type of facility according to the Code.

Response to 15.50.025(2)(b) - This is a potential 90 year lease. During which time, surrounding properties will be devalued due to proximity to a commercial tower. According to The National Business Post, property values could be reduced by up to 20%.

Lewis county stands to lose tax revenue due to the devaluation of surrounding property.

Thursday, August 28, 2025

Mr. Pinkston,

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My family and I have recently moved into the residential area, and we are neighbors to this proposed project. We and numerous others do not want our beautiful and quiet residential area to be burdened with an unsightly commercial facility. To that end, please see my following comments:

Page:8

Access/Circulation - Access to the site needs to be described from Birley Road. Skyview Drive is a private road, and the project proponent will be required to adhere to the access easement which does not allow for any vegetation clearing or trimming. Additionally, the easement only allows for access over an approximate 10 foot wide existing road. The Project Proponent will need to get approval from neighboring property owners to conduct any activity other than driving along the existing road. Although they may be minimal, there are traffic impacts. However, in the proposed location, those minimal impacts are increased due to the one-way road. Project Proponent will need to get approval from neighboring property owners to use their driveways as pull-outs to allow traffic to pass.

Section V - The project proponent did not address 15.50.010(2) which states the purpose of the Chapter is to "encourage the location of support towers and antenna arrays in *nonresidential* and nonschool zones"(emphasis added)

Page:9

Response to 15.50.025(1)(e) - This statement is slightly misleading. It is more accurate to state that this is the LEAST preferable type of facility according to the Code.

Response to 15.50.025(2)(b) - This is a potential 90 year lease. During which time, surrounding properties will be devalued due to proximity to a commercial tower. According to The National Business Post, property values could be reduced by up to 20%.

Lewis county stands to lose tax revenue due to the devaluation of surrounding property.

Page:10

Response to 15.50.030(2)(b) - All considerations for the granting of this permit should consider cumulative impact (traffic, noise, health issues, etc.) of four facilities, not just the impact of the initial tower.

Page 11

Response to 15.50.035(2)(a) - Minimum setback distance is the height of the tower (150 ft). Therefore, Project Proponent is out of compliance based on the setback distances stated here.

Page 12

Response to 15.50.040(1)(a) - I did not find a narrative which includes location, development standards, or design standards. Project Proponent needs to make this narrative available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Response to 15.50.040(1)(c) - The easement from Birley grants access along the "existing gravel road" It does not grant authority for any vegetation trimming or clearance or widening of the road.

Residents in this area have, at their own expense, paved a portion of the road. The paved area and the gravel portions of the easement are approximately 10 feet in width.

According to the original language when the easement was granted (1978) no rights were granted except for travel along the "existing gravel road." Since there are no survey points or measurements from the center line of the road, the easement limits are at the outside boundary of the gravel/paved path. In this case approximately 10 feet wide. Any encroachment, improvement, modification, or other activity outside that limit would require the authorization of the neighboring landowner.

Page 13

Response to 15.50.040(1)(f) - The photo analysis lacks existing conditions from the point of entry onto private property. When turning off of Birley onto Skyview Dr, one immediately enters onto a private road. This road is maintained by the residents, and a portion of it was recently paved. The project Proponent must provide photographic analysis of any existing damage to the road as well as status of adjacent and overhanging vegetation.

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Additionally, there is no photographic analysis of the site from the nearest residential structures on the eastern side of the site.

Page 14

Response to 15.50.040(2)(b) - I did not find the evaluation drawings. Project Proponent needs to make these drawings available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Response to 15.50.040(2)(c) - Project Proponent has not included a detailed landscaping and screening plan which includes existing vegetation.

This section of the code REQUIRES a detailed plan to be included in the proposal.

Project Proponent needs to develop such plan and show what vegetation will remain after the site work is completed. The plan will then need to be available to the public and the public comment period needs to be extended in order to provide for sufficient review time.

Page 15

Summary - According to Chapter 15.50 of the Lewis county code, this facility is neither consistent with local ordinances (This chapter is established to encourage construction of towers in non residential areas.) nor located in the highest preference (this is the LEAST preferable facility according to the chapter).

Page 65

Background #7 - This response is clearly contradicted by the Project Proponent in their responses to the Code above.

Project proponent stated previously that this facility is "designed for 3 additional collocators. It is the intention of Harmoni Towers to market the facility to other providers"

The entire SEPA checklist is predicated on a single facility. At the same time, the Project Proponent indicates that they have plans for future additions, expansion, or further activity because they have designed it for additional collocators and they intend to market that additional capacity.

At the very least, Project Proponent should revise the SEPA checklist and resubmit it for review based on the potential for additional facilities.

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Environmental Elements 1.e. - It is my understanding that there will be a 12 ft wide road as well as an additional 8ft wide easement for utilities. The current road access to the site appears to be approximately 10 ft wide with steep (up to 40%) slopes on both the uphill and downhill sides. In order to establish a 20 foot access and utility easement, significant effort will go into widening the road. The potential for rocks or trees to fall onto the residences to the east is significant.

The total affected area will include grading necessary for expansion of the access road. The access road appears to be approximately 750 feet long. with a 20 foot wide access and utility right of way in addition to necessary sloping for stability and safety reasons, the total affected area will likely exceed 25,000 square feet (10x their stated impact area)

Environmental Elements 1.f. - Widening the road and necessary removal of vegetation will cause at least some erosion. Given the proximity of the residences to the east, there is a significant chance that erosion could deposit sediment on adjoining properties.

Project Proponent should develop their Stormwater Pollution Prevention Plan (SWPPP) with a focus on keeping sediment deposits from occurring on neighboring properties.

Environmental Elements 1.g. - The 12 ft wide road and 50x50 site will be approximately 11,500 square feet, not 5,000 as stated.
A SWPPP needs to be developed with clear indications of Best Management Practices. For any project where grading or clearing of vegetation is expected, it is unacceptable to say that no measures to control erosion are anticipated.

Environmental Elements 2.c. - By design, there will be a generator on site. If the generator is powered by a combustion engine, there will be emissions as well as noise.

Page 70

Environmental Elements 4.b. - There will also be some vegetation removed to accommodate the access road.

Environmental Elements 4.d. - Current vegetation will be thinned due to construction activities. Remaining vegetation will not likely be sufficient for screening.

Environmental Elements 4.e. - A plant survey will be needed prior to construction to determine the answer to this question. Residents in the area have small children, pets, and livestock that are susceptible to some noxious plants. Project Proponent needs to provide evidence to the public that they have not and will not contribute to the spread of any Class A, B, or C Weed.

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Environmental Elements 6.a. - Describe the fuel type of the generator.

Environmental Elements 7.a. - Fueling of equipment and the generator will pose a potential for fire or spill. Increased likelihood of lightning strikes which may cause a fire.

Page 72

Environmental Elements 7.a.5. - Provide documentation that proves nearby residence exposure levels fall within an acceptable range according to the FCC.

Environmental Elements 7.b.2. - "Minimal" is a subjective term. The project site is a VERY quiet residential area. "Minimal" noise from a generator may not bother someone who lives in a city. However, even a small generator will significantly increase the ambient noise in this quiet residential area.

What is the project proponent doing to ensure they do not create a nuisance as defined under RCW 7.48 of Washington State Law?

Environmental Elements 7.b.3.- This is unacceptable. In the previous answer, the project proponent stated there would be "minimal" noise. If it is "minimal" what levels of noise will the neighboring residents hear? If it is "no noise" that needs to be stated above.

Page 73

Environmental Elements 8.l.- As stated before, existing vegetation will be thinned or removed.

Page 74

Environmental Elements 10.b. - This is a contradictory statement. The project proponent states no obstruction or alteration is anticipated. Then, in the next sentence, admits that there will be some visual impact.

The views are currently of a natural skyline. The photo simulations very clearly show how the view will be altered by an unnatural structure.

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equipment along the road (10 ft wide) without causing damage. Currently, the paved portion of Skyview Drive is free from any significant damage such as potholes, depressions, sloughing, etc.

Environmental Elements 14.c. - My understanding is that they need a 12 foot wide road. Skyview Drive is 10 feet wide. How will they get up the road without improvements?

Environmental Elements 14.g. - Skyview Drive is a one-lane steep road. Any additional vehicle on the road will cause impacts. Project Proponent needs to, at a minimum, describe how they will manage traffic when accessing the site.

Page 77

Environmental Elements 16.b. -This is the first mention of fiber. It is not shown or discussed in any of the maps. Project Proponent needs to provide a map showing where trenching for fiber will take place.

Thank you, Alan Watts 277 Skyview Dr. Mossyrock, WA 98564

From:	Bekki Watts
To:	Preston Pinkston
Subject:	Permit Number(s): WCF25-0002, SEP25-0021 Opposition
Date:	Friday, September 5, 2025 1:40:45 AM
Attachments:	part 1 Lewis County wcf25-0002 sep25-0021 opposition with PHOTOTS REBECCA WATTS.docx part 2 Lewis County wcf25-0002 sep25-0021 opposition with PHOTOTS REBECCA WATTS.docx

Preston Pinkston,

Please find attached my written comments and supporting photos (2 documents in total) regarding the proposed wireless communication facility at 262 Skyview Drive in Mossyrock, WA. I am submitting these for consideration as part of the public record and request that they be reviewed prior to the upcoming public hearing.

Please confirm that this message and its attachments have been received and will be included in the hearing record.

Rebecca Watts
277 Skyview Dr. Mossyrock, WA 98564
agbekkini@yahoo.com
832-419-2436

Opposition to Lewis County WCF25-0002, SEP25-0021 permits

Skyview Drive Road: I am very concerned about the logistics of construction and maintenance for this proposed cell tower given the unique and challenging nature of Skyview Drive, our private, one-lane road. This winding, steep road is only about 10 feet wide, with numerous blind curves, rocky hillside terrain on one side, and nonexistent shoulders on the other that drop off sharply toward established homes and families below. Because of the steepness and narrow shoulders, it can be difficult to fully appreciate the danger and access challenges from photos alone. There are no public turnouts or turnarounds, meaning that any oncoming traffic requires at least one driver to back up. Residents currently rely on mutual agreements to use private driveways as temporary pullouts to allow vehicles to pass. Importantly, no private landowner on this road would permit cell tower company trucks or construction vehicles to use their personal driveways on their private properties. Every lot owner (except Kevin Riffle, owner of 262 Skyview Dr) on Skyview Drive opposes this project. Given these conditions, and without clear easement or access rights, I strongly question how the applicant plans to safely and practically transport heavy equipment and materials to the proposed site without causing disruption, damage, or risking safety.
Please see the following three photos of Skyview Drive. While it is difficult to fully capture in pictures, these images illustrate the narrow, steep, and winding nature of the road.

From my living room, dining room, and kitchen windows— the very heart of our home—I currently enjoy serene views of our professionally landscaped, terraced backyard and the beautiful trees atop the hill facing our front door. Our windows in this part of the house span a large, 5 foot by 12 foot area on the upper floor. This peaceful, natural scene is an essential part of our daily life. Our community is built around people who value being close to nature—that's why we all chose to buy spacious 5+ acre residential lots to enjoy privacy, open space, and natural beauty. If this cell tower proposal is approved, the view will be dramatically altered, replaced by a 150-foot tall industrial structure that would dominate the landscape and erode the tranquility and beauty we cherish. This will significantly decrease our property value. Aesthetics matter deeply in Mossyrock, a community celebrated for its picturesque landscapes and serene environment. Introducing a towering industrial structure in a residential area would starkly conflict with the character and values that make this community and this city so special. The presence of this tower so close to our home would fundamentally change the character of our living space and the quality of life for our family.

The following photo includes: View out our front window overlooking our front yard, front gates, and the tree line beyond, where the proposed project site is.

The proposed cell tower at 262 Skyview Drive poses a direct threat to the environmental integrity and rural character of our community. The parcel is zoned RDD-5 and is surrounded by long-established single-family homes, steep slopes exceeding 35% (according to online maps from Lewis county), and sensitive ecosystems that do not support the industrialization of our residential area. The project would require vegetation clearing, land grading, and ongoing site maintenance—processes that often involve the use of herbicides, pesticides, petroleum-based fuels, and other chemical agents. These substances are hazardous to the soil, water, wildlife, and the health of nearby residents. Given the steep slopes, the risk of chemical runoff and/or accidental fuel spills is significantly elevated and could easily impact adjacent properties, natural water flows, and native habitats.

Of particular concern is the tower's proximity—less than half a mile—to **Adytum Sanctuary**, a well-established, pesticide-free retreat that supports a walking food garden and maintains several active bee boxes critical to local pollination and biodiversity. Guests travel to Adytum for healing and respite in a natural environment free of synthetic chemicals and urban intrusion. Construction of a cell tower, with its unavoidable environmental footprint and visual disruption, would compromise the very foundation of Adytum's mission. Additionally, many homes throughout our community also support bee boxes and pollinator-friendly gardens. The introduction of synthetic chemicals and construction pollutants in this area threatens not only our agricultural sustainability and clean-living standards, but also the health of our pollinators—upon which both our ecosystem and local food sources depend. This site is wholly inappropriate for a wireless facility, and we urge the County to deny the proposal and seek a location that aligns with both zoning intent and community values.

The following photos include: (Left) Entrance to Adytum Sanctuary, a long-established, pesticide-free retreat operating under permitted uses in the RDD-5 zone. (Right) The proposed cell tower would be prominently visible from this location, creating an incompatible visual and environmental intrusion that undermines the sanctuary's lawful and intended use of the land.

Our front yard at 277 Skyview Dr. has been professionally landscaped and maintained to preserve the rural character and scenic value consistent with the intent of this low-density residential zoned community. The proposed 150-foot cell tower, situated approximately 400 feet away and directly uphill, would create a permanent visual intrusion visible from our front gate and throughout our property. This constitutes a substantial degradation of the aesthetic environment, undermines our investment in property enhancement, decreases our property value, and violates the principles of compatible land use by introducing a high-impact commercial structure into a residential area specifically designated for quiet enjoyment and rural preservation.

The following photo includes: The view from inside one of our front gates, looking outward toward the location of the proposed wireless communication facility. The tower would be sited near the tree line, uphill.

The following photo includes: View of our front yard and patio area, looking toward the front gate, which is framed by a green archway. This peaceful, professionally landscaped space is where our children study and our family spends time, daily. The proposed 150-foot cell tower would be clearly visible just beyond this gate, near the tree line.

We homeschool our children. The proposed cell tower location at 262 Skyview Drive would loom directly over the front door patio area where my children regularly homeschool. Studying and learning in a peaceful, beautiful environment is important to our children's well-being and educational experience. We chose this rural residential area for its natural beauty and quiet surroundings—qualities that support our decision to homeschool. This photo shows our children working on our front patio, which directly faces the proposed tower site.
Our front yard has been thoughtfully and professionally landscaped to create a peaceful and stunning environment, designed specifically to enhance natural beauty and provide a serene space for learning, relaxing, and family activities. The steep 35% slope of the site means the tower would be visually dominant and impossible to mitigate with typical landscaping or screening measures. This proximity and topography would disrupt not only the visual harmony of our meticulously cared-for yard but also the tranquil atmosphere essential to our homeschooling. The photos included clearly show how incredible and nurturing this space is, and placing a large industrial structure so close threatens to undermine this unique and cherished environment. I respectfully urge the Planning Department to deny this proposal or require the applicant to find alternative locations that do not compromise residential peace, safety, and quality of life.

The following photos include: The views out the front door as our children are homeschooling. Notice the two front gates (framed by a green archways) and the tree line above, where the proposed tower would be. This view from my front porch shows how the proposed 150-foot tower will dominate the skyline.

Additional Note:
While I understand that health concerns alone may not be grounds for denial under current regulations, I must emphasize the importance of considering the potential impacts of prolonged exposure to radiofrequency radiation, especially for children. Scientific studies, including research published on PubMed, have linked such exposure to issues like oxidative stress, difficulty concentrating, brain fog, and disturbances in sleep—conditions that could seriously affect the well-being and learning capacity of my children who spend significant time outdoors near the proposed tower site. Given that our homeschooling takes place in this very yard and in our home, it is essential to prioritize their health and safety by ensuring that cell towers are sited at a safe distance from residential and educational environments. The close proximity of this tower is not consistent with protecting the health of vulnerable populations, including children.

For all of the reasons documented above—including visual disruption, environmental risk, incompatibility with surrounding residential and agricultural uses, and violation of the intent of RDD-5 zoning—I urge Lewis County to deny the proposed wireless communication facility at 262 Skyview Drive and to preserve the rural character, beautiful aesthetics, health, and integrity of our community. –Rebecca Watts, 277 Skyview Dr. Mossyrock, WA

Delivered to Preston Pinkston @ Lewis County Planning
Sept 5, 2025 @ 3:53pm PST

https://www.change.org/p/stop-the-150-foot-verizon-wireless-tower-at-262-skyview-drive-mossyrock

Change.org

Stop the 150-Foot Verizon Wireless Tower at 262 Skyview Drive, Mossyrock

The Issue

We, the undersigned residents and community members of Mossyrock and surrounding areas, strongly oppose the application SEP25-0021 by Verizon Wireless to construct a 150-foot-tall wireless communication tower at 262 Skyview Drive. This project poses serious and immediate risks to the safety, character, and environmental integrity of our rural community.

Our reasons for opposing this project include:

1. Unacceptable Proximity to Homes and Fire Risk

The proposed tower site lies less than 300 feet from residential structures. This is dangerously close, especially given the fire hazards associated with high-voltage telecommunications equipment, back-up power systems, and increased electrical infrastructure. Our region is already highly susceptible to wildfires and high winds, and introducing additional ignition risks in such close quarters to family homes is irresponsible and unacceptable.

2. Destruction of Mossyrock's Rural and Scenic Character

Mossyrock is known and loved for its peaceful, scenic, and rural environment. This is why we chose to live here. The construction of an industrial-scale tower—150 feet tall—will permanently alter the landscape, disrupt wildlife, cause

noise pollution during and after construction, and destroy the quiet serenity that defines this area. This is not just an eyesore—it's an erosion of everything Mossyrock stands for.

3. Inadequate and Misrepresented Access

The application claims that the site is served by a 20-foot-wide access road. This is false. The only access available is a narrow, private one-way road, 10–12 feet wide at most, and privately funded by the homeowners along it, who recently spent over $127,000 for its maintenance and upkeep. This road was not designed or intended for commercial or heavy industrial traffic, and its use for such purposes raises safety and liability concerns for all residents.

4. Clearly Expressed Community Opposition

The majority of the neighboring property owners firmly reject the idea of this tower being constructed so close to their homes. We were not ever in agreement , and our safety, wellbeing, and investment in this community are being sacrificed for the financial gain of one landowner and a corporation. This is not community development—it is exploitation.

5. Violation of Community Trust and Values

We moved to Mossyrock to escape urban sprawl, industrial intrusion, and to find peace in nature. To have this violated by a project that benefits so few at the direct and lasting expense of the rest of the community is deeply unjust.

We urge local authorities, planning boards, and relevant agencies to:

Reject the Verizon Wireless application
Protect the safety and character of our community
Uphold the rights of the residents who built their lives around the promise of peace and rural beauty in Mossyrock.

Together, we stand for safety, transparency, and preservation of the rural way of life we all came here for.

Please sign and share this petition. Help us protect our community.

Monica Carp: Petition Starter

Media inquiries

133 TOTAL SIGNATURES
4 COMMENTS

The Decision Makers

Randall Sasser

Mossyrock City Mayor

Mike Hadaller

Lewis County Public Utilities District Board - District 3

Michael Kelly

Lewis County Public Utility District Board - District 1

4 Supporter Voices

Trisha Berg, Mossyrock, WA
1 day ago
No cell tower near residential areas. There's plenty of other hills around with no houses that they can put a tower on. We value our health, our property value and our community that we live in the way it is . Don't destroy it with an ugly tower that radiates RF which is proven to cause cancer.

Kathryn Allen, Chehalis, WA
1 day ago
These towers aren't safe around homes! People and children live around here!

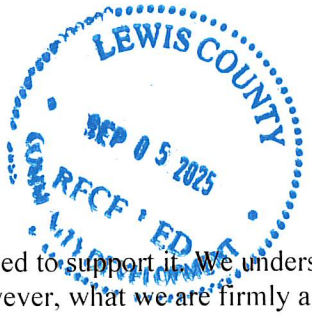
L, Tacoma
3 days ago
This is about the health and welfare of our families! We do not want, nor do we need a 5g tower in a residential area! Take it somewhere else!

Heidi Howard, Onalaska,WA
3 days ago
There are too many health concerns connected with these towers. They should not be in communities.

Name	City	State	Postal Code	Country	Signed On
Monica Carp	Portland	OR	97225	United States	8/30/2025
Karen Henning	Mossyrock	WA	98564	United States	9/1/2025
Mitchell Henning	Port Orchard	WA	98367	United States	9/1/2025
Manuela Mann	Wilsonville	OR	97070	United States	9/1/2025
Rebecca Watts	Mossyrock	WA	98564	United States	9/1/2025
Vanessa Kupietz	Lewis County	WA	98160	United States	9/1/2025
Brandy Perkins	Seattle	WA	98168	United States	9/1/2025
Richard Ray	Glenoma	WA	98336	United States	9/1/2025
Heather Corona	Seattle	WA	98160	United States	9/2/2025
Carol Jensen	Randle	WA	98377	United States	9/2/2025
Marietta Currie	Mossyrock	WA	98564	United States	9/2/2025
Darin Puntillo	Portland	OR	97209	United States	9/2/2025
Diana Sowards	Seattle	WA	98160	United States	9/2/2025
Francesca Currie	Edmonds	WA	98020	United States	9/2/2025
Chavilla Monk	Silver Creek	WA	98585	United States	9/2/2025
Mariah Harvey	Randle	WA	98377	United States	9/2/2025
Angela Judkins	Oxnard	CA	93035	United States	9/2/2025
Ashlee Mitchell	Chehalis	WA	98532	United States	9/2/2025
Kori Dewaele	Onalaska	WA	98570	United States	9/2/2025
Cheryl Goff	Randle	WA	98377	United States	9/2/2025
Adrianna Powell	Randle	WA	98356	United States	9/2/2025
Hector Corona	Corpus Christi	TX	78414	United States	9/2/2025
Sheryl Sanek	Graham	WA	98338	United States	9/2/2025
Jen Whitten	Bellevue	WA	98007	United States	9/2/2025
Lakia Bilodeau	Randle	WA	98377	United States	9/2/2025
Ashley Ward	Seattle	WA	98198	United States	9/2/2025
Brandy Betz	Randle	WA	98377	United States	9/2/2025
Brandi Case	Graham	WA	98338	United States	9/2/2025
George Carp	Portland	OR	97225	United States	9/2/2025
Kayla Gallien	Mossyrock	WA	98564	United States	9/2/2025
Callie Yates	Seattle	WA	98160	United States	9/2/2025
Teresa Ekdahl-Johnson	Mossyrock	WA	98564	United States	9/2/2025
Brian Jensen	Randle	WA	98377	United States	9/2/2025
Olga Sprague	Mossyrock	WA	98564	United States	9/2/2025
Zoey Hicks	Glenoma	WA	98336	United States	9/2/2025
Joe Bard	Randle	WA	98377	United States	9/2/2025
Amber Kinsman	Onalaska	WA	98570	United States	9/2/2025
Samantha Miller	Renton	WA	98055	United States	9/2/2025
Maile Lakely	Onalaska	WA	98570	United States	9/2/2025
Jordan Guffey	Medford	OR	97501	United States	9/2/2025
Kristine B	Onalaska	WA	98570	United States	9/2/2025
Michelle Green	Onalaska	WA	98570	United States	9/2/2025
Elizabeth Jerome	Glenoma	WA	98336	United States	9/2/2025
Jane Higginson	Indianapolis	IN	46240	United States	9/2/2025
Lindsey Beveridge	Centrailia	WA	98531	United States	9/2/2025
Victoria spears	Onalaska	WA	98570	United States	9/2/2025
Heidi Howard	Onalaska	WA	98570	United States	9/2/2025
Barbara Hensley	Randle	WA	98377	United States	9/2/2025
Adrian Berg	Mossyrock	WA	98564	United States	9/2/2025
Brittany Morton	Yelm	WA	98597	United States	9/2/2025
helmut floss	Mossyrock	WA	98564	United States	9/2/2025
Michelle Attaway	Doty	WA	98532	United States	9/2/2025
David Binns	Goldendale	WA	98620	United States	9/2/2025

Sammy Fishbeck	Mossyrock	WA	98564	United States	9/2/2025
Justin Laabs	Mossyrock	WA	98564	United States	9/2/2025
Brandon Brown	Edmonds	WA	98020	United States	9/2/2025
Matt Snyder	Wyoming	MI	49509	United States	9/2/2025
Donna Perkins	Gig Harbor	WA	98335	United States	9/2/2025
Monika Jazewicz	Mossyrock	WA	98564	United States	9/2/2025
Bonnie Cross	Chehalis	WA	98532	United States	9/2/2025
Dennis Schlenker	Onalaska	WA	98570	United States	9/2/2025
Jessica Pakar	Randle	WA	98377	United States	9/2/2025
Ashley Vaughan	Onalaska	WA	98564	United States	9/2/2025
Darlene Banks	Mossyrock	WA	98564	United States	9/2/2025
Lauren Hail	Seattle	WA	98160	United States	9/2/2025
Rose Etl	Mossyrock	WA	98564	United States	9/2/2025
Nicole Wood	Mossyrock	WA	98564	United States	9/2/2025
Ida Klein	Seattle	WA	98118	United States	9/2/2025
Lacey Ross	Silver Creek	WA	97504	United States	9/2/2025
Travis Miller	Seattle	WA	98118	United States	9/2/2025
Marcella Kretzler	Seattle	WA	98160	United States	9/2/2025
Shelley De Oliveira	Seattle	WA	98160	United States	9/2/2025
Sarah Durbin	Centralia	WA	98531	United States	9/2/2025
Elizabeth Hart	Seattle	WA	98160	United States	9/2/2025
Margarita Jara	Mossyrock	WA	98564	United States	9/2/2025
Kaylee Stiltner	Silver Creek	WA	98585	United States	9/2/2025
Rebecca Brown	Chehalis	WA	98532	United States	9/2/2025
Judith Gansberg	Silver Creek	WA	98585	United States	9/2/2025
Jeremiah Broderick	Mossyrock	WA	98564	United States	9/2/2025
RHONDA BRIDGES	Morton	WA	98356	United States	9/2/2025
Deanna Yost	Mossyrock	WA	98564	United States	9/2/2025
Amy Morehouse	Mossyrock	WA	98564	United States	9/2/2025
Tami Shand	Mossyrock	WA	98564	United States	9/2/2025
Crystal Bright	Glenoma	WA	98336	United States	9/2/2025
Lacy Spears	Onalaska	WA	98570	United States	9/2/2025
Cameron Fitzhugh	Salkum	WA	98582	United States	9/2/2025
Stacy Chambers	Mossyrock	WA	98564	United States	9/2/2025
Rebecca Vargas	Onalaska	WA	98570	United States	9/3/2025
Joshua Stottlemyer	Tenino	WA	98589	United States	9/3/2025
Elizabeth Schmitt	Cinebae	WA	98533	United States	9/3/2025
Laura Wyman	Mossyrock	WA	98564	United States	9/3/2025
Marietta Snyder	Edmonds	WA	98026	United States	9/3/2025
Caitlin Schwartz	Olympia	WA	98512	United States	9/3/2025
Amanda coria	Mossyrock	WA	98564	United States	9/3/2025
Nancy Prime	Onalaska	WA	98570	United States	9/3/2025
Kelsey Hermann	Onalaska	WA	98570	United States	9/3/2025
Jessica Stirling	Glenoma	WA	98336	United States	9/3/2025
Teri Olsen	Oregon City	OR	97045	United States	9/3/2025
Kim Chambers	Salkum	WA	98582	United States	9/3/2025
christina Alexander	Seattle	WA	98144	United States	9/3/2025
Teresa Hamilton	Morton	WA	98356	United States	9/3/2025
Kohen Westhoff				United States	9/3/2025
Brody Nakonsky	Cathlamet	WA	98612	United States	9/3/2025
John Roberts	Bellingham	WA	98229	United States	9/3/2025
Nakota Fischer	Mossyrock	WA	98564	United States	9/3/2025
Pebbles Kaydus	Morton	WA	98356	United States	9/3/2025
Terri Aust	Onalaska	WA	98570	United States	9/3/2025

Kayla Johnson	Tacoma	WA	98445	United States	9/3/2025
Christian Ford	Morton	WA	98356	United States	9/3/2025
Jasmine Henderson	Morton	WA	98356	United States	9/3/2025
Jacinta Smith	Chehalis	WA	98532	United States	9/4/2025
Heidi Perry	Glenoma	WA	98336	United States	9/4/2025
Gena Neitzel	Mossyrock	WA	98585	United States	9/4/2025
Valerie Pacheco	Mossyrock	WA	98564	United States	9/4/2025
Nathaniel Perry	Glenoma	WA	98336	United States	9/4/2025
Lisa Lizotte	Salkum	WA	98582	United States	9/4/2025
Anita Bassett	Northglenn	CO	80233	United States	9/4/2025
M'Lisse Peake	Mossyrock	WA	98564	United States	9/4/2025
Yesenia Hernandez	Mossyrock	WA	98564	United States	9/4/2025
KATHRYN ALLEN	Winlock	WA	98596	United States	9/4/2025
Kristy Wallen	Winlock	WA	98596	United States	9/4/2025
Christy Meade	Grandview	WA	98930	United States	9/4/2025
Molly Inocencio	Morton	WA	98356	United States	9/4/2025
Jeramy Kaydus	Morton	WA	98356	United States	9/4/2025
William Price	Auburn	WA	98092	United States	9/4/2025
Trisha Berg	Mossyrock	WA	98564	United States	9/4/2025
David Twietmeyer	Bothell	WA	98041	United States	9/4/2025
Kaisha Guffey	Federal Way	WA	98003	United States	9/4/2025
Gurpreet Minhas	Tacoma	WA	98406	United States	9/4/2025
Garrett Wallen	Winlock	WA	98596	United States	9/5/2025
Alan Watts	Mossyrock	WA	98564	United States	9/5/2025
Teri Wright	Silver Creek	WA	98585	United States	9/5/2025
Douglas Wright	Silver Creek	WA	98585	United States	9/5/2025



September 5, 2025

Lewis County Community Development,

Our community is not opposed to technology or to the infrastructure needed to support it. We understand the importance of reliable wireless communication in today's world. However, what we are firmly against is the placement of a 150-foot industrial cell tower within a residentially zoned parcel—just hundreds of feet from well-established homes (including my own, at 277 Skyview Dr.) where families live, children are homeschooled, and residents have invested in creating peaceful, quiet, aesthetically pleasing, safe environments. This location (262 Skyview Dr.) is simply inappropriate for such a structure. Technology and progress should not come at the cost of our community's safety, property values, and quality of life—especially when Lewis County has failed to apply its own land use standards with transparency, diligence, or the level of public accountability that this process demands.

Our community consists of approximately 20 homes, each with several acres of land, situated in a quiet, residentially zoned area known for its scenic beauty, clean environment, and peaceful lifestyle. We are a tightly knit group of families, retirees, remote workers, and land stewards who chose this location precisely for its safety, remoteness, and pristine views.

I live at 277 Skyview Drive, Mossyrock, WA and I personally oppose Lewis County Permit Numbers WCF25-0002, SEP25-0021 for the following reasons:

Contradiction with Lewis County Zoning and Community Standards

The proposal to construct a new cell tower on a residentially zoned parcel at 262 Skyview Drive stands in stark contrast to the very essence of what Mossyrock represents. This is not just any location—it is a picturesque, serene, and tightly knit rural community, deeply valued for its natural beauty, recreational appeal, and peaceful residential character. Families, retirees, vacationers, and outdoor enthusiasts are drawn to Mossyrock precisely because of its unspoiled vistas, quiet surroundings, and the sense of escape it offers from urban development. The introduction of a towering, industrial structure in the heart of a well-established neighborhood would irreparably alter the visual landscape, diminish property values, and undermine the very qualities that make this area so desirable. Moreover, placing such a facility in a residential zone directly contradicts Lewis County's own stated preference to avoid siting wireless facilities in residential and school areas unless absolutely necessary (LCC 15.50.025). There are far more appropriate, less intrusive locations for such infrastructure—this pristine residential neighborhood is simply not one of them.

The Lewis County Comprehensive Plan clearly articulates goals to preserve rural character, protect the natural environment, and prevent incompatible land uses.[1] The proposed cell tower at 262 Skyview Drive —on a residentially zoned parcel surrounded by single-family homes and steep slopes—runs directly counter to these principles.[2] State law under the Washington Growth Management Act also requires that rural development preserve open space, ensure visual compatibility with surrounding areas, and prevent urban sprawl.[3] Furthermore, Lewis County's own Countywide Planning Policies emphasize that commercial and industrial development should be directed to Urban Growth Areas (UGAs) or Limited

Areas of More Intensive Rural Development (LAMIRDs), not rural residential neighborhoods like ours.[4]

We urge the County to uphold these protections by directing wireless infrastructure to more appropriate locations consistent with both zoning intent and the County's long-term vision.

1. *Lewis County Comprehensive Plan (2020), Chapter 2 – Rural and Resource Lands.* "Protecting the rural character of Lewis County includes preserving open space, forests, and agricultural lands, as well as preventing sprawling development and incompatible uses."

2. *Lewis County Code § 17.15.010 and § 17.15.040 (RDD-5 Zone Purpose and Standards).* "The RDD-5 district is intended to provide for low-density rural residential uses while preserving the character of rural lands."

3. *RCW 36.70A.070(5)(c) – Rural Element of the Washington State Growth Management Act.* "The rural element shall include measures that apply to rural development and protect the rural character of the area, by… reducing the inappropriate conversion of undeveloped land into sprawling, low-density development."

4. *Lewis County Countywide Planning Policies (2020).* "Industrial and commercial development should be concentrated in UGAs or designated LAMIRDs, and should not intrude into residential rural areas."

Proximity to Homes Violates the Intent of Lewis County Code

Lewis County Code clearly states that the siting of wireless communication facilities should prioritize nonresidential and nonschool zones.[1] This proposal places a massive, industrial-grade tower in the heart of a quiet rural residential neighborhood—within 400–500 feet of multiple homes with children—directly contravening that policy.[2] Furthermore, the applicant has provided no evidence that alternative, less

intrusive sites were evaluated or rejected.[4] Without a documented analysis of alternatives, this proposal is

not just poorly sited—it fails to meet the underlying intent of the Code and should not be approved.

1. Source: Lewis County Code § 15.50.010(2). "Encourage the location of support towers and antenna arrays in nonresidential and nonschool zones."

2. Source: Lewis County Code § 15.50.025(1)(a) and (b) – Site Location Preferences. Preference is given first to collocation on existing towers in nonresidential/non-school zones, then collocation in residential/school zones—but saturated with the priority hierarchy that disfavors new towers on residential land.

3. Source: Lewis County Code § 15.50.030(1)(a) – Development Standards. "The county shall deny an application for a new support tower if the applicant does not demonstrate a good faith effort to collocate on an existing facility."

Environmental Hazards: Tree Clearing, Slope Instability, and Erosion Risk

The proposed tower site lies atop a steep hillside that exceeds 35% slope, according to Lewis County GIS overlay data. My home is located directly below this slope, which continues across both parcels with similar grade and topography.

Any tree clearing or construction on such steep terrain greatly increases the risk of erosion, stormwater runoff, and slope destabilization—posing direct risks to my home and those of other neighbors downhill. Given these geophysical realities, a full Critical Areas Review is not only justified but essential.

The County must require:

- A Geotechnical Hazard Assessment to evaluate slope stability under all weather and disturbance conditions.
- A Runoff and Drainage Plan to prevent property damage and water intrusion from disturbed soils.
- Enforcement of the Lewis County Critical Areas Ordinance regarding development on steep slopes.

Incomplete Application and Code Violations Warrant Rejection

We strongly urge Lewis County to cancel or deny this application as the SEPA checklist submitted is incomplete and misleading, in violation of WAC 197-11-100 and Lewis County Code 17.110.030. It omits essential environmental information required for a proper threshold determination, including the full extent of land disturbance, erosion controls, generator specifications, and co-location impacts. Under state and local law, the County cannot proceed with review or approval until a complete and accurate checklist is submitted, and the public comment period should be extended accordingly.

Furthermore, the proposal fails to meet critical procedural, legal, and environmental requirements under SEPA (WAC 197-11), Lewis County Code (17.110 and 15.50), and the County's Comprehensive Plan. The applicant has not provided an alternatives analysis, nor demonstrated that less intrusive sites were considered and rejected. The site is located on steep, environmentally sensitive slopes within a residentially zoned area intended for low-density, rural living—not industrial development.

Approving this project in its current form would violate both the letter and spirit of Lewis County's land use policies and set a dangerous precedent for inappropriate developments in other residential zones. For the protection of the environment, public health, and the community's rural character, this application should be denied or canceled outright.

Unresolved Legal Questions Regarding Access and Easement Rights

The proposed tower site is located on a residential parcel served by Skyview Drive, a narrow, private, single-lane road that is maintained by the residents. This raises significant concerns regarding legal access for both initial construction and ongoing maintenance of a commercial wireless facility.

As of the time of writing, the following questions remain unanswered:

1. Has legal access been demonstrated for the type of commercial construction required—specifically for large trucks, cranes, and other heavy equipment?
2. What does the recorded easement actually permit? Is there written authorization for non-residential or commercial use of the road for cell towers, or is the easement limited to residential access only?
3. Has Lewis County independently reviewed the recorded easement language to determine whether it supports the scope and intensity of use associated with this tower project?
4. Does this easement allow for any utilities?

5. Will any vehicles or utilities be crossing over any private properties?

Until these questions are fully answered—and made available for public review—it would be premature and legally questionable to approve the application. Any approval must be contingent upon verifiable legal access and full compliance with easement restrictions.

Environmental and Visual Degradation

This location is known for its tranquility and uniqueness, and is sought-after by people looking to get away from exactly this type of industrial development. This tower would stand tall over the ridge my house is on, above the Cowlitz River, a stunning and ecologically sensitive area that contributes to the natural beauty and serenity of our community. The tower will be visible from the Mayfield Lake and Cowlitz River below, marring the pristine views and permanently changing the landscape.

Negative Impact on Property Values and Local Infrastructure

Extensive research and real estate appraisals consistently show that proximity to cell towers can reduce property values by up to 20%. This decline affects not only individual homeowners but also diminishes the County's overall tax revenue.

The private road providing access to the community and the proposed site was privately rebuilt by local residents in 2024 at an approximate cost of $130,000. Was this single-lane road designed or engineered to support commercial or heavy construction traffic? Has Lewis county investigated this? Any damage caused by construction or maintenance vehicles will place an undue burden on residents, with no guaranteed reimbursement for repairs.

Introducing a commercial-grade cell tower into this quiet, scenic, and rural residential neighborhood will cause immediate and significant property devaluation. Numerous studies confirm that homes near cell towers:

- Sell for less than comparable properties
- Experience longer times on the market
- Attract fewer prospective buyers

These effects stem from concerns over aesthetic disruption, perceived and actual health risks, and the intrusion of industrial infrastructure into peaceful rural settings. Our community is deeply committed to protecting both the financial value and the unique character of the homes and land we cherish.

Incompatibility with Zoning and Community Intent

This is a residentially zoned area, where all community utilities—including power—are underground by design, in keeping with the area's clean and unobtrusive visual character. The proposed tower represents a major departure from that character and directly contradicts the intended land use for this district.

Lewis County Code emphasizes that wireless facilities must be designed and located to minimize visual impacts and avoid disruption to surrounding properties.[1] Yet, this project introduces a stark industrial structure into a quiet, scenic community of single-family homes—where aesthetics and rural integrity are part of daily life and long-term property value.

Residents in this community deliberately chose to live in a place free from towers, traffic, and industrial structures. Approving a commercial cell tower in this setting not only undermines the established land use but also violates the aesthetic expectations of homeowners who invested in a peaceful and visually harmonious environment.

If wireless communication facilities are permitted on residentially zoned parcels like this, it sets a troubling precedent for Lewis County—one that erodes trust in zoning protections and opens the door to further incompatible developments. Both the County and the applicant have a responsibility to seek alternative sites outside of residential areas, or to pursue co-location on existing structures, as required by County code and siting priorities.

This isn't just about one tower. It's about preserving the rural lifestyle, scenic value, and residential integrity that define our community.

Lewis County Code § 15.50.030(1)(e): "Wireless communication facilities shall be designed and located to minimize visual impact to the greatest extent feasible, considering factors such as site placement, height, materials, color, and screening."

Regional Precedents Reinforce the Need to Reject Poorly Sited Towers

Recent opposition efforts in Thurston County highlight concerns that are directly relevant to the proposed cell tower at 262 Skyview Drive in Mossyrock. In Thurston County, residents successfully challenged similar proposals by citing environmental impacts on wildlife habitats, inadequate public notice, health and safety risks—particularly near homes and schools—and negative effects on property values and neighborhood aesthetics. Legal challenges also emphasized the importance of adhering to local zoning regulations and comprehensive plans intended to preserve rural and residential character (The Olympian, 2017; OlyWIP, 2023; FindLaw, 2007). While the proposed tower in Mossyrock is not adjacent to a school, it would be located just 400 feet from my home, where I homeschool my children —raising serious concerns about safety and quality of life in our daily living and learning environment. Our opposition is grounded in the same core principles: protecting Mossyrock's pristine environment, ensuring meaningful public participation, safeguarding public health, and upholding Lewis County's zoning policies that discourage industrial-scale structures in residential areas. These parallels reinforce the urgency and legitimacy of our concerns.

Fire Risk Concerns from Cell Tower Facilities

The proposed cell tower site, located within 400–500 feet of multiple homes—including mine—and accessible only via a narrow, single-lane private road, presents serious fire safety risks that have not been adequately addressed. Given the rural, heavily forested setting and occasional high winds in Mossyrock, the potential for tower-related fires to threaten nearby residences is significant.

1. Increased Fire Hazards Due to Equipment Malfunction and Electrical Failures
Cell towers involve complex electrical equipment, including backup generators, batteries, and power converters, all of which pose ignition risks. Overheated equipment, faulty wiring, or battery malfunctions can spark fires, especially in dry, forested areas. According to the National Fire Protection Association (NFPA), electrical equipment is a leading cause of wildfires, and cell towers are no exception (NFPA, 2023). Multiple documented incidents across the U.S. have involved tower-related fires, some causing extensive damage to nearby vegetation and infrastructure.[1]

2. Fire Spread Risk in Rural and Forested Settings
The tower site's location on steep, forested slopes above residential properties significantly increases the risk of rapid fire spread. Wind conditions in this region can exacerbate fire behavior, pushing flames downhill toward homes clustered within 500 feet. The U.S. Forest Service warns that wildfires in steep terrain and dry forests spread more quickly and are harder to contain, increasing risks to human life and property.[2]

3. Limited Access for Emergency Response
Skyview Drive is a single-lane, private road maintained by residents. This narrow, unengineered access route complicates emergency vehicle response, potentially delaying firefighting efforts. Research from the International Fire Chiefs Association stresses the importance of multiple, wide access points for wildfire response, which is lacking in this case.[3] Any delay in fire suppression could result in greater property loss and threaten residents' safety.

4. Lack of Fire Prevention and Mitigation Plans in the Application
The project application has not provided detailed fire risk assessments or mitigation strategies, such as

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Please see email for complete letter.

Critical Considerations for Community Health and Safety

While I fully understand that, under Section 704 of the Telecommunications Act of 1996, local governments may not deny a wireless facility permit solely on the basis of health concerns related to federally compliant RF emissions, it is critical that these concerns be formally acknowledged as part of the public record. The fact that health cannot serve as the legal basis for denial does not negate the legitimacy or severity of public concern. To disregard these issues entirely would erode community trust and demonstrate a failure to consider the broader public interest.

I am a veterinarian, and over the past year and a half, my professional research has focused extensively on oxidative stress and its role in health outcomes. Recent scientific studies provide evidence that exposure to radiofrequency (RF) electromagnetic fields can increase oxidative stress and cause cellular damage, as shown by Lai and Singh (2004), who found increased DNA strand breaks in brain cells after RF exposure. Oxidative stress is linked to various adverse health effects, including neurological disorders and cancer risk.

A comprehensive 2022 review of 38 peer-reviewed studies titled "Evidence for a health risk by RF on humans living around mobile phone base stations" (PubMed ID: 35843283) found that 74% of the studies reported adverse health effects associated with living near RF-emitting installations. Reported symptoms included sleep disruption, headaches, and increased cancer risk, underscoring growing scientific concerns about chronic RF exposure in residential settings.

Additional research further highlights that children exposed to RF radiation exhibit higher rates of behavioral problems, ADHD-like symptoms, and developmental delays (MobilEe, PMC9159629), raising serious concerns for families like mine who homeschool and spend extensive time outdoors on our property.

The proposed tower would be constructed immediately adjacent to our home. My family resides full-time on a 5-acre residential parcel, where both my husband, Alan Watts, and I work remotely and homeschool our children. We are present on the property nearly every hour of every day and spend extensive time outdoors. The RF exposure in this context would be not occasional, but constant and cumulative.
Given our proximity to the tower site, the nature of our daily lives, and the presence of young children, our family faces a uniquely elevated exposure profile compared to the general public. Our children spend much of their day outside—learning, playing, and working on the land—which makes the long-term, close-range presence of a commercial-grade RF-emitting tower particularly concerning. Placing this facility within a few hundred feet of our home not only threatens the peaceful and health-conscious environment we've deliberately created, but also violates our right to the quiet enjoyment and safe use of our property, as protected under state and local land use laws.

Current federal and international safety standards focus only on heating effects from RF exposure and do not account for increasing evidence of other harmful effects from long-term exposure—especially for children, pregnant individuals, and vulnerable populations. These standards are outdated and do not fully protect public health.

Given this uncertainty, I urge the County to apply the Precautionary Principle, an internationally recognized approach that calls for caution and protective measures when serious harm is possible, even if all scientific evidence is not yet conclusive. Under this principle, those proposing the project must demonstrate its safety, with public health and environmental protection as the top priorities.

Bortkiewicz, Alicja, et al.
"Evidence for a health risk by RF on humans living around mobile phone base stations: From radiofrequency sickness to cancer." *International Journal of Occupational Medicine and Environmental Health*, vol. 35, no. 4, 2022, pp. 423–445.
PubMed ID: 35843283

Mortazavi, S.M.J., et al.
"Children's exposure to radiofrequency radiation: Behavioral problems, ADHD-like symptoms, and developmental delays." *MobilEe*, PMC9159629, 2022.
PMC9159629

Potential Liability Risk to Lewis County

If Lewis County approves this permit despite extensive, well-documented community opposition and credible concerns about environmental, health, and property impacts, it risks exposing itself to preventable legal liability. Communities across the country have successfully challenged local governments over poorly sited infrastructure projects—particularly when those approvals occurred without adequate environmental review, legal clarity, or procedural compliance.

Approving a commercial project on steep, erosion-prone slopes—especially above existing homes—could lead to landslides or runoff damage, making the County potentially liable for future harm. Similarly, approving a cell tower within 400 feet of family homes and children, on a parcel with unresolved easement rights and insufficient environmental analysis, raises serious legal and ethical questions.

Such actions could result in costly litigation and taxpayer-funded damages. To protect both the community and the County itself, this application must be denied.

Conclusion and Request

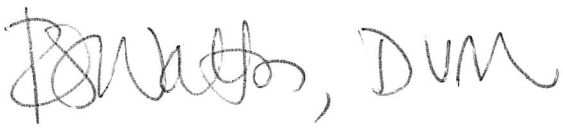
I ask the Lewis County Planning Commission to deny Permit #SEP25-0021, WCF25-0002, based on the following critical concerns:

- Violation of zoning laws and community planning goals: The proposed tower directly contradicts Lewis County's Comprehensive Plan, zoning code, and rural preservation policies.
- Unsafe proximity to homes and children: A 150-foot industrial tower within 400–500 feet of multiple residences violates the County's own site preference hierarchy and prioritizes convenience over safety.
- Environmental risks from tree clearing and steep-slope disturbance: The project threatens erosion, slope instability (with documented, 35% or greater steep slopes), and visual damage.
- Incomplete and misleading application: The SEPA checklist omits essential impact data (co-location, fuel type, noise, erosion controls) and fails to meet basic state and county environmental review standards.
- Legal uncertainties about access: Construction relies on a privately maintained, single-lane road with unresolved easement rights and no proven legal access for this type of commercial use.
- Severe visual and ecological degradation: The tower would scar the rural skyline, diminish scenic views (including views from the Highway 12 Scenic Byway), and irreparably alter the area's natural character.
- Property devaluation and road damage: Studies confirm cell towers reduce home values. Our community road—privately rebuilt for approximately $130,000—was built for residential use and may suffer unreimbursed damage.
- Incompatibility with established land use and aesthetics: This is a quiet, residentially zoned neighborhood with underground utilities by design. A towering industrial structure undermines everything the community was built to preserve.

- Regional precedents reinforce opposition: Other counties have rejected similar proposals due to inadequate environmental review, zoning violations, and overwhelming community objection.
- Increased wildfire and infrastructure risk: Cell towers have been associated with fire hazards in high-wind areas, especially when placed near trees and steep terrain without proper mitigation or evacuation access.
- Modern alternatives make this tower unnecessary: Satellite broadband systems like Starlink provide fast, tower-free rural connectivity—without industrial intrusion or RF saturation near homes.
- Health concerns cannot be ignored: While RF exposure alone may not be grounds for denial, documented health risks—especially for children in close proximity—must be acknowledged and considered.
- Liability exposure to the County: Approving this project in defiance of code, without environmental due diligence or legal access, could expose Lewis County to preventable legal and financial consequences.

Please ensure this letter becomes part of the formal public record regarding the permit application.

Rebecca Watts, DVM
277 Skyview Dr. Mossyrock, WA 98564
agbekkini@yahoo.com
832-419-2436



From: Bekki Watts
To: Preston Pinkston
Subject: Opposition for permits WCF25-0002, SEP25-0021
Date: Friday, September 5, 2025 9:30:12 AM
Attachments: Opposition Letter to wcf25-0002, sep25-0021 REBECCA WATTS.docx

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Please see attached letter from myself, Rebecca Watts, DVM opposing the cell phone tower at 262 Skyview Dr.
Please confirm that you have received this and that it will be read and considered for the decision of this project.

September 5, 2025

Lewis County Community Development,

Our community is not opposed to technology or to the infrastructure needed to support it. We understand the importance of reliable wireless communication in today's world. However, what we are firmly against is the placement of a 150-foot industrial cell tower within a residentially zoned parcel—just hundreds of feet from well-established homes (including my own, at 277 Skyview Dr.) where families live, children are homeschooled, and residents have invested in creating peaceful, quiet, aesthetically pleasing, safe environments. This location (262 Skyview Dr.) is simply inappropriate for such a structure. Technology and progress should not come at the cost of our community's safety, property values, and quality of life—especially when Lewis County has failed to apply its own land use standards with transparency, diligence, or the level of public accountability that this process demands.

Our community consists of approximately 20 homes, each with several acres of land, situated in a quiet, residentially zoned area known for its scenic beauty, clean environment, and peaceful lifestyle. We are a tightly knit group of families, retirees, remote workers, and land stewards who chose this location precisely for its safety, remoteness, and pristine views.

I live at 277 Skyview Drive, Mossyrock, WA and I personally oppose Lewis County Permit Numbers WCF25-0002, SEP25-0021 for the following reasons:

Contradiction with Lewis County Zoning and Community Standards

The proposal to construct a new cell tower on a residentially zoned parcel at 262 Skyview Drive stands in stark contrast to the very essence of what Mossyrock represents. This is not just any location—it is a picturesque, serene, and tightly knit rural community, deeply valued for its natural beauty, recreational appeal, and peaceful residential character. Families, retirees, vacationers, and outdoor enthusiasts are drawn to Mossyrock precisely because of its unspoiled vistas, quiet surroundings, and the sense of escape it offers from urban development. The introduction of a towering, industrial structure in the heart of a well-established neighborhood would irreparably alter the visual landscape, diminish property values, and undermine the very qualities that make this area so desirable. Moreover, placing such a facility in a residential zone directly contradicts Lewis County's own stated preference to avoid siting wireless facilities in residential and school areas unless absolutely necessary (LCC 15.50.025). There are far more appropriate, less intrusive locations for such infrastructure—this pristine residential neighborhood is simply not one of them.

The Lewis County Comprehensive Plan clearly articulates goals to preserve rural character, protect the natural environment, and prevent incompatible land uses.[1] The proposed cell tower at 262 Skyview Drive—on a residentially zoned parcel surrounded by single-family homes and steep slopes—runs directly counter to these principles.[2] State law under the Washington Growth Management Act also requires that rural development preserve open space, ensure visual compatibility with surrounding areas, and prevent urban sprawl.[3] Furthermore, Lewis County's own Countywide Planning Policies emphasize that commercial and industrial development should be directed to Urban Growth Areas (UGAs) or Limited Areas of More Intensive Rural Development (LAMIRDs), not rural residential neighborhoods like ours.[4] We urge the County to uphold these protections by directing wireless infrastructure to more appropriate locations consistent with both zoning intent and the County's long-term vision.

1. *Lewis County Comprehensive Plan (2020), Chapter 2 – Rural and Resource Lands*. "Protecting the rural character of Lewis County includes preserving open space, forests, and agricultural lands, as well as preventing sprawling development and incompatible uses."

2. *Lewis County Code § 17.15.010 and § 17.15.040 (RDD-5 Zone Purpose and Standards).* "The RDD-5 district is intended to provide for low-density rural residential uses while preserving the character of rural lands."

3. *RCW 36.70A.070(5)(c) – Rural Element of the Washington State Growth Management Act.* "The rural element shall include measures that apply to rural development and protect the rural character of the area, by… reducing the inappropriate conversion of undeveloped land into sprawling, low-density development."

4. *Lewis County Countywide Planning Policies (2020).* "Industrial and commercial development should be concentrated in UGAs or designated LAMIRDs, and should not intrude into residential rural areas."

Proximity to Homes Violates the Intent of Lewis County Code

Lewis County Code clearly states that the siting of wireless communication facilities should prioritize non-residential and non-school zones.[1] This proposal places a massive, industrial-grade tower in the heart of a quiet rural residential neighborhood—within 400–500 feet of multiple homes with children—directly contravening that policy.[2] Furthermore, the applicant has provided no evidence that alternative, less intrusive sites were evaluated or rejected.[4] Without a documented analysis of alternatives, this proposal is not just poorly sited—it fails to meet the underlying intent of the Code and should not be approved.

1. Source: Lewis County Code § 15.50.010(2). "Encourage the location of support towers and antenna arrays in nonresidential and nonschool zones."

2. Source: Lewis County Code § 15.50.025(1)(a) and (b) – Site Location Preferences. Preference is given first to collocation on existing towers in nonresidential/non-school zones, then collocation in residential/school zones—but saturated with the priority hierarchy that disfavors new towers on residential land.

3. Source: Lewis County Code § 15.50.030(1)(a) – Development Standards. "The county shall deny an application for a new support tower if the applicant does not demonstrate a good faith effort to collocate on an existing facility."

Environmental Hazards: Tree Clearing, Slope Instability, and Erosion Risk

The proposed tower site lies atop a steep hillside that exceeds 35% slope, according to Lewis County GIS overlay data. My home is located directly below this slope, which continues across both parcels with similar grade and topography.

Any tree clearing or construction on such steep terrain greatly increases the risk of erosion, stormwater runoff, and slope destabilization—posing direct risks to my home and those of other neighbors downhill. Given these geophysical realities, a full Critical Areas Review is not only justified but essential.

The County must require:

- A Geotechnical Hazard Assessment to evaluate slope stability under all weather and disturbance conditions.
- A Runoff and Drainage Plan to prevent property damage and water intrusion from disturbed soils.
- Enforcement of the Lewis County Critical Areas Ordinance regarding development on steep slopes.

Incomplete Application and Code Violations Warrant Rejection

We strongly urge Lewis County to cancel or deny this application as the SEPA checklist submitted is incomplete and misleading, in violation of WAC 197-11-100 and Lewis County Code 17.110.030. It omits essential environmental information required for a proper threshold determination, including the full extent of land disturbance, erosion controls, generator specifications, and co-location impacts. Under state and local law, the County cannot proceed with review or approval until a complete and accurate checklist is submitted, and the public comment period should be extended accordingly.

Furthermore, the proposal fails to meet critical procedural, legal, and environmental requirements under SEPA (WAC 197-11), Lewis County Code (17.110 and 15.50), and the County's Comprehensive Plan. The applicant has not provided an alternatives analysis, nor demonstrated that less intrusive sites were considered and rejected. The site is located on steep, environmentally sensitive slopes within a residentially zoned area intended for low-density, rural living—not industrial development.

Approving this project in its current form would violate both the letter and spirit of Lewis County's land use policies and set a dangerous precedent for inappropriate developments in other residential zones. For the protection of the environment, public health, and the community's rural character, this application should be denied or canceled outright.

Unresolved Legal Questions Regarding Access and Easement Rights

The proposed tower site is located on a residential parcel served by Skyview Drive, a narrow, private, single-lane road that is maintained by the residents. This raises significant concerns regarding legal access for both initial construction and ongoing maintenance of a commercial wireless facility.

As of the time of writing, the following questions remain unanswered:

1. Has legal access been demonstrated for the type of commercial construction required—specifically for large trucks, cranes, and other heavy equipment?

2. What does the recorded easement actually permit? Is there written authorization for non-residential or commercial use of the road for cell towers, or is the easement limited to residential access only?
3. Has Lewis County independently reviewed the recorded easement language to determine whether it supports the scope and intensity of use associated with this tower project?
4. Does this easement allow for any utilities?
5. Will any vehicles or utilities be crossing over any private properties?

Until these questions are fully answered—and made available for public review—it would be premature and legally questionable to approve the application. Any approval must be contingent upon verifiable legal access and full compliance with easement restrictions.

Environmental and Visual Degradation

This location is known for its tranquility and uniqueness, and is sought-after by people looking to get away from exactly this type of industrial development. This tower would stand tall over the ridge my house is on, above the Cowlitz River, a stunning and ecologically sensitive area that contributes to the natural beauty and serenity of our community. The tower will be visible from the Mayfield Lake and Cowlitz River below, marring the pristine views and permanently changing the landscape.

Negative Impact on Property Values and Local Infrastructure

Extensive research and real estate appraisals consistently show that proximity to cell towers can reduce property values by up to 20%. This decline affects not only individual homeowners but also diminishes the County's overall tax revenue.

The private road providing access to the community and the proposed site was privately rebuilt by local residents in 2024 at an approximate cost of $130,000. Was this single-lane road designed or engineered to support commercial or heavy construction traffic? Has Lewis county investigated this? Any damage caused by construction or maintenance vehicles will place an undue burden on residents, with no guaranteed reimbursement for repairs.

Introducing a commercial-grade cell tower into this quiet, scenic, and rural residential neighborhood will cause immediate and significant property devaluation. Numerous studies confirm that homes near cell towers:

- Sell for less than comparable properties
- Experience longer times on the market
- Attract fewer prospective buyers

These effects stem from concerns over aesthetic disruption, perceived and actual health risks, and the intrusion of industrial infrastructure into peaceful rural settings. Our community is deeply committed to protecting both the financial value and the unique character of the homes and land we cherish.

Incompatibility with Zoning and Community Intent

This is a residentially zoned area, where all community utilities—including power—are underground by design, in keeping with the area's clean and unobtrusive visual character. The proposed tower represents a major departure from that character and directly contradicts the intended land use for this district.

Lewis County Code emphasizes that wireless facilities must be designed and located to minimize visual impacts and avoid disruption to surrounding properties.[1] Yet, this project introduces a stark industrial structure into a quiet, scenic community of single-family homes—where aesthetics and rural integrity are part of daily life and long-term property value.

Residents in this community deliberately chose to live in a place free from towers, traffic, and industrial structures. Approving a commercial cell tower in this setting not only undermines the established land use but also violates the aesthetic expectations of homeowners who invested in a peaceful and visually harmonious environment.

If wireless communication facilities are permitted on residentially zoned parcels like this, it sets a troubling precedent for Lewis County—one that erodes trust in zoning protections and opens the door to further incompatible developments. Both the County and the applicant have a responsibility to seek alternative sites outside of residential areas, or to pursue co-location on existing structures, as required by County code and siting priorities.

This isn’t just about one tower. It’s about preserving the rural lifestyle, scenic value, and residential integrity that define our community.

Lewis County Code § 15.50.030(1)(e): “Wireless communication facilities shall be designed and located to minimize visual impact to the greatest extent feasible, considering factors such as site placement, height, materials, color, and screening.”

Regional Precedents Reinforce the Need to Reject Poorly Sited Towers

Recent opposition efforts in Thurston County highlight concerns that are directly relevant to the proposed cell tower at 262 Skyview Drive in Mossyrock. In Thurston County, residents successfully challenged similar proposals by citing environmental impacts on wildlife habitats, inadequate public notice, health and safety risks—particularly near homes and schools—and negative effects on property values and neighborhood aesthetics. Legal challenges also emphasized the importance of adhering to local zoning regulations and comprehensive plans intended to preserve rural and residential character (The Olympian, 2017; OlyWIP, 2023; FindLaw, 2007). While the proposed tower in Mossyrock is not adjacent to a school, it would be located just 400 feet from my home, where I homeschool my children—raising serious concerns about safety and quality of life in our daily living and learning environment. Our opposition is grounded in the same core principles: protecting Mossyrock's pristine environment, ensuring meaningful public participation, safeguarding public health, and upholding Lewis County's zoning policies that discourage industrial-scale structures in residential areas. These parallels reinforce the urgency and legitimacy of our concerns.

Fire Risk Concerns from Cell Tower Facilities

The proposed cell tower site, located within 400–500 feet of multiple homes—including mine—and accessible only via a narrow, single-lane private road, presents serious fire safety risks that have not been adequately addressed. Given the rural, heavily forested setting and occasional high winds in Mossyrock, the potential for tower-related fires to threaten nearby residences is significant.

1. Increased Fire Hazards Due to Equipment Malfunction and Electrical Failures
Cell towers involve complex electrical equipment, including backup generators, batteries, and power converters, all of which pose ignition risks. Overheated equipment, faulty wiring, or battery malfunctions can spark fires, especially in dry, forested areas. According to the National Fire Protection Association (NFPA), electrical equipment is a leading cause of wildfires, and cell towers are no exception (NFPA, 2023). Multiple documented incidents across the U.S. have involved tower-related fires, some causing extensive damage to nearby vegetation and infrastructure.[1]

2. Fire Spread Risk in Rural and Forested Settings
The tower site's location on steep, forested slopes above residential properties significantly increases the risk of rapid fire spread. Wind conditions in this region can exacerbate fire behavior, pushing flames downhill toward homes clustered within 500 feet. The U.S. Forest Service warns that wildfires in steep terrain and dry forests spread more quickly and are harder to contain, increasing risks to human life and property.[2]

3. Limited Access for Emergency Response
Skyview Drive is a single-lane, private road maintained by residents. This narrow, unengineered access route complicates emergency vehicle response, potentially delaying firefighting efforts. Research from the International Fire Chiefs Association stresses the importance of multiple, wide access points for wildfire response, which is lacking in this case.[3] Any delay in fire suppression could result in greater property loss and threaten residents' safety.

4. Lack of Fire Prevention and Mitigation Plans in the Application
The project application has not provided detailed fire risk assessments or mitigation strategies, such as defensible space management, installation of fire-resistant equipment, or emergency access improvements. According to best practices (in wildfire-prone areas), these measures are essential to

minimize fire risk from infrastructure projects near residential zones (Washington State Department of Natural Resources, 2022).[4]

The installation of a commercial-grade cell tower in this steep, forested area—accessible only by a narrow, single-lane private road—would significantly increase fire risk to our homes and community. Towers like these often require electrical equipment, backup generators, and fuel storage, all of which introduce ignition hazards. Combined with the dense vegetation, slope instability, and limited access for emergency vehicles, this project would heighten the risk of fire ignition and severely complicate emergency response. Without a comprehensive fire safety and emergency access plan, allowing this project to move forward would endanger public safety and the well-being of all nearby residents.

Emerging Technologies Render Towers Like This Obsolete

Our household uses Starlink satellite internet, which provides high-speed broadband without the need for large towers, poles, or invasive trenching. Technologies like Starlink and Amazon's Project Kuiper are increasingly making terrestrial cell towers in rural areas unnecessary and outdated.

These innovations offer broadband with:

- Minimal ground disturbance
- Lower and more localized RF emissions compared to large cell towers
- No road damage or extensive construction
- Better alignment with rural land use goals and environmental preservation

Given these alternatives, the proposed tower represents an unnecessary intrusion that conflicts with our community's commitment to maintaining its rural character and ecological integrity.

Critical Considerations for Community Health and Safety

While I fully understand that, under Section 704 of the Telecommunications Act of 1996, local governments may not deny a wireless facility permit solely on the basis of health concerns related to federally compliant RF emissions, it is critical that these concerns be formally acknowledged as part of the public record. The fact that health cannot serve as the legal basis for denial does not negate the legitimacy or severity of public concern. To disregard these issues entirely would erode community trust and demonstrate a failure to consider the broader public interest.

I am a veterinarian, and over the past year and a half, my professional research has focused extensively on oxidative stress and its role in health outcomes. Recent scientific studies provide evidence that exposure to radiofrequency (RF) electromagnetic fields can increase oxidative stress and cause cellular damage, as shown by Lai and Singh (2004), who found increased DNA strand breaks in brain cells after RF exposure. Oxidative stress is linked to various adverse health effects, including neurological disorders and cancer risk.

A comprehensive 2022 review of 38 peer-reviewed studies titled “Evidence for a health risk by RF on humans living around mobile phone base stations” (PubMed ID: 35843283) found that 74% of the studies reported adverse health effects associated with living near RF-emitting installations. Reported symptoms included sleep disruption, headaches, and increased cancer risk, underscoring growing scientific concerns about chronic RF exposure in residential settings.

Additional research further highlights that children exposed to RF radiation exhibit higher rates of behavioral problems, ADHD-like symptoms, and developmental delays (MobilEe, PMC9159629), raising serious concerns for families like mine who homeschool and spend extensive time outdoors on our property.

The proposed tower would be constructed immediately adjacent to our home. My family resides full-time on a 5-acre residential parcel, where both my husband, Alan Watts, and I work remotely and homeschool our children. We are present on the property nearly every hour of every day and spend extensive time outdoors. The RF exposure in this context would be not occasional, but constant and cumulative.

Given our proximity to the tower site, the nature of our daily lives, and the presence of young children, our family faces a uniquely elevated exposure profile compared to the general public. Our children spend much of their day outside—learning, playing, and working on the land—which makes the long-term, close-range presence of a commercial-grade RF-emitting tower particularly concerning. Placing this facility within a few hundred feet of our home not only threatens the peaceful and health-conscious environment we’ve deliberately created, but also violates our right to the quiet enjoyment and safe use of our property, as protected under state and local land use laws.

Current federal and international safety standards focus only on heating effects from RF exposure and do not account for increasing evidence of other harmful effects from long-term exposure—especially for children, pregnant individuals, and vulnerable populations. These standards are outdated and do not fully protect public health.

Given this uncertainty, I urge the County to apply the Precautionary Principle, an internationally recognized approach that calls for caution and protective measures when serious harm is possible, even if all scientific evidence is not yet conclusive. Under this principle, those proposing the project must demonstrate its safety, with public health and environmental protection as the top priorities.

Bortkiewicz, Alicja, et al.
"Evidence for a health risk by RF on humans living around mobile phone base stations: From radiofrequency sickness to cancer." *International Journal of Occupational Medicine and Environmental Health*, vol. 35, no. 4, 2022, pp. 423–445.
PubMed ID: 35843283

Mortazavi, S.M.J., et al.
"Children’s exposure to radiofrequency radiation: Behavioral problems, ADHD-like symptoms, and developmental delays." *MobilEe*, PMC9159629, 2022.
PMC9159629

Potential Liability Risk to Lewis County

If Lewis County approves this permit despite extensive, well-documented community opposition and credible concerns about environmental, health, and property impacts, it risks exposing itself to preventable legal liability. Communities across the country have successfully challenged local governments over poorly sited infrastructure projects—particularly when those approvals occurred without adequate environmental review, legal clarity, or procedural compliance.

Approving a commercial project on steep, erosion-prone slopes—especially above existing homes—could lead to landslides or runoff damage, making the County potentially liable for future harm. Similarly, approving a cell tower within 400 feet of family homes and children, on a parcel with unresolved easement rights and insufficient environmental analysis, raises serious legal and ethical questions.

Such actions could result in costly litigation and taxpayer-funded damages. To protect both the community and the County itself, this application must be denied.

Conclusion and Request

I ask the Lewis County Planning Commission to deny Permit #SEP25-0021, WCF25-0002, based on the following critical concerns:

- **Violation of zoning laws and community planning goals**: The proposed tower directly contradicts Lewis County's Comprehensive Plan, zoning code, and rural preservation policies.
- **Unsafe proximity to homes and children**: A 150-foot industrial tower within 400–500 feet of multiple residences violates the County's own site preference hierarchy and prioritizes convenience over safety.
- **Environmental risks from tree clearing and steep-slope disturbance**: The project threatens erosion, slope instability (with documented, 35% or greater steep slopes), and visual damage.
- **Incomplete and misleading application**: The SEPA checklist omits essential impact data (co-location, fuel type, noise, erosion controls) and fails to meet basic state and county environmental review standards.
- **Legal uncertainties about access**: Construction relies on a privately maintained, single-lane road with unresolved easement rights and no proven legal access for this type of commercial use.
- **Severe visual and ecological degradation**: The tower would scar the rural skyline, diminish scenic views (including views from the Highway 12 Scenic Byway), and irreparably alter the area's natural character.
- **Property devaluation and road damage**: Studies confirm cell towers reduce home values. Our community road—privately rebuilt for approximately $130,000—was built for residential use and may suffer unreimbursed damage.
- **Incompatibility with established land use and aesthetics**: This is a quiet, residentially zoned neighborhood with underground utilities by design. A towering industrial structure undermines everything the community was built to preserve.
- **Regional precedents reinforce opposition**: Other counties have rejected similar proposals due to inadequate environmental review, zoning violations, and overwhelming community objection.
- **Increased wildfire and infrastructure risk**: Cell towers have been associated with fire hazards in high-wind areas, especially when placed near trees and steep terrain without proper mitigation or evacuation access.

- **Modern alternatives make this tower unnecessary**: Satellite broadband systems like Starlink provide fast, tower-free rural connectivity—without industrial intrusion or RF saturation near homes.
- **Health concerns cannot be ignored**: While RF exposure alone may not be grounds for denial, documented health risks—especially for children in close proximity—must be acknowledged and considered.
- **Liability exposure to the County**: Approving this project in defiance of code, without environmental due diligence or legal access, could expose Lewis County to preventable legal and financial consequences.

Please ensure this letter becomes part of the formal public record regarding the permit application.

Rebecca Watts, DVM
277 Skyview Dr. Mossyrock, WA 98564
agbekkini@yahoo.com
832-419-2436

SLADE WATTS

277 Skyview Dr. Mossyrock WA 98564 | 832-419-2436 | agbekkini@yahoo.com

9/5/25

Preston Pinkston

Planner

351 NW North St., Chehalis WA 98532

Re: Lewis County Permits WCF25-0002, SEP25-0021

Dear Preston Pinkston:

I do not want this cell tower because there will be more light ruining the peaceful night. Normally we have beautiful views of the stars. I love playing and climbing in my front yard because it is so beautiful. If the cell tower gets built my yard and view won't be beautiful any more. I home school in my front yard and I am outside almost all day long. Our front yard has lots of bees and I have read and heard from bee keepers at the Mossyrock Blueberry Festival that RF waves interfere with bee activity.

Sincerely,

Slade Watts

SLADE WATTS

From: Bekki Watts
To: Preston Pinkston
Subject: Opposition for permits WCF25-0002, SEP25-0021
Date: Friday, September 5, 2025 10:03:34 AM
Attachments: Slade Watts document.docx

Please see attached letter from Slade Watts, opposing the cell phone tower at 262 Skyview Dr.
Please confirm that you have received this and that it will be read and considered for the decision of this project.

SLADE WATTS

277 Skyview Dr. Mossyrock WA 98564 | 832-419-2436 | agbekkini@yahoo.com

9/5/25

Preston Pinkston
Planner
351 NW North St., Chehalis WA 98532
Re: Lewis County Permits WCF25-0002, SEP25-0021

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SLADE WATTS

VICTORIA WATTS

277 Skyview Dr. Mossyrock WA 98564 | 832-419-2436 | agbekkini@yahoo.com

9/5/25

Preston Pinkston

Planner

351 NW North St., Chehalis WA 98532

Re: Lewis County Permits WCF25-0002, SEP25-0021

Dear Preston Pinkston:

How are you allowed to build a cell tower on a residential lot? The lot is right next to where my family owns land. Our house will be approximately 400 ft from the tower. It will create constant humming. One thing that I love most about our property is how calm, serene, peaceful, undisturbed and quiet it is. Our front yard is a haven for hummingbirds, swallows, and bees, and I fear not enjoying that space as much. I absolutely will be affected by the monstrosity of a tower looming directly above us. The views from my Living Room and Dining Room will be disturbingly interrupted by the cell tower, which does not fit in to this beautiful and rural landscape. I homeschool and find various parts of my property to preform this task. It frustrates me to think that a cell tower this close to properties is allowed. Would you or anyone else related to approving this permit want a tower less than 500 ft from your home(s)?! I am twelve years old and wrote this letter of my own accord. One of my many favorite subjects is Excellence In Writing.

In Jesus' Name

Victoria Watts

Victoria Watts

From: Bekki Watts
To: Preston Pinkston
Subject: Opposition for permits WCF25-0002, SEP25-0021
Date: Friday, September 5, 2025 9:24:25 AM
Attachments: Victoria Watts document.docx

See attached letter from Victoria Watts, opposing the cell tower at 262 Skyview Dr.

Please confirm that you received this and that this will be read and included in the review of the projected project.

VICTORIA WATTS

277 Skyview Dr. Mossyrock WA 98564 | 832-419-2436 | agbekkini@yahoo.com

9/5/25

Preston Pinkston
Planner
351 NW North St., Chehalis WA 98532
Re: Lewis County Permits WCF25-0002, SEP25-0021

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In Jesus' Name

Victoria Watts

LEWIS COUNTY
Washington's First County
est. 1845

Community Development

125 NW Chehalis Ave
Chehalis WA 98532

SEPA Comments Memo

File Number: SEP25-0021

Date Printed: September 23, 2025

BUILDING DEPARTMENT

Doyle Sanford, Building Official
- Engineered building plans will be required.
- Improvements will be required on access road, including emergency vehicle turn around.

PUBLIC WORKS

Shawn Latimer, Surbey
- No Comments

Ryan Skeen, Roads, Stormwater, Transportation:
- Any work in the county ROW, as necessary, to connect utilities will require a Public Works Work in the ROW permit.
- Stormwater: No Comment
- Transportation: No Comment

Kimberly Edminster, Access
- No Comments

ENVIRONMENTAL HEALTH

Mike Hamling, On-site Septic
- No comments